

Matt Huenerfauth  
matt.huenerfauth@rit.edu

## Academic Position

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**Professor.** Golisano College of Computing and Information Sciences, Rochester Institute of Technology.

Faculty Appointments: Department of Information Sciences and Technologies  
Ph.D. Program in Computing and Information Sciences

Focus of Research: Computer accessibility and assistive technology for people with disabilities, human computer interaction, natural language processing, technology for learning American Sign Language, and experimental evaluations of linguistic and assistive technology by people who are Deaf or Hard of Hearing (DHH).

## Professional History

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<b>Professor.</b> Golisano College of Computing & Information Sciences, RIT.	July 2017 to Present
<b>Associate Professor.</b> Golisano College of Computing & Information Sciences, RIT.	August 2014 to July 2017
<b>Associate Dean.</b> DMNS, Queens College, City University of New York.	June 2012 to August 2014
<b>Associate Professor.</b> Queens College, City University of New York.	January 2012 to August 2014
<b>Assistant to the Dean.</b> DMNS, Queens College, City University of New York.	November 2011 to June 2012
<b>Assistant Professor (Tenured).</b> Queens College, City University of New York.	September 2011 to Dec. 2011
<b>Assistant Professor.</b> Queens College, City University of New York.	September 2006 to August 2011

## Research and Teaching Awards

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**ACM Distinguished Member.** (2017). The Association for Computing Machinery (ACM) raises approximately 45 individuals internationally to this status each year who have over 15 years of professional experience, have achieved significant scientific or technical accomplishments, and have made a significant impact on the field of computing.

**Best Paper Award.** (2017). For “Evaluating the Usability of Automatically Generated Captions for People who are Deaf or Hard of Hearing” at the 19<sup>th</sup> International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS’17). Only two individuals in the history of the conference have been three-time recipients of this award.

**Best Paper Nominee.** (2017). For “Design and Psychometric Evaluation of an American Sign Language Translation of the System Usability Scale” at the 19<sup>th</sup> International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS’17). This designation is given to the top 5% of peer-reviewed papers submissions to the conference.

**RIT PI Millionaire.** (2017). Rochester Institute of Technology, designation given to RIT researchers who have achieved funding of \$1 million or more in external grants to RIT. (Joined the faculty of RIT in August 2014.)

**Featured Faculty in RIT’s Faculty Scholarship Report.** (2017). Selected by the dean of the Golisano College of Computing and Information Sciences as the faculty member to be featured in the RIT annual report of scholarship; this annual report lists the publications, research presentations, and research grants of all RIT faculty.

**Certificate of Recognition for Outstanding Scholarly Achievement.** (2016). Rochester Institute of Technology. Award from the Office of the Provost of RIT as researcher from the Golisano College of Computing with the greatest number of contributions to the 2015 Faculty Scholarship Report (the #4 contributor for the university overall).

**ACM Senior Member.** (2014). The Association for Computing Machinery (ACM) honors members with at least 10 years of professional experience and demonstrated performance through technical leadership or contributions.

**Faculty Early Career Development (CAREER) Award.** (2008). U.S. National Science Foundation’s most prestigious research award in support of junior faculty who integrate research and education within the mission of their organizations. The award comes with a federal grant for research and education activities for five consecutive years.

**Certificate of Recognition.** (2008 and 2007). CUNY Chancellor’s “Salute to Scholars” Ceremony.

**Best Paper Award.** (2007). For the paper “Evaluating American Sign Language Generation Through the Participation of Native ASL Signers” at the 9<sup>th</sup> ACM SIGACCESS Conference on Computers and Accessibility (ASSETS’07).

**Morris & Dorothy Rubinoff Award.** (2007). Innovative Dissertation in Computer Science, University of Pennsylvania.

**Best Paper Award.** (2005). For the paper entitled “Representing Coordination and Non-Coordination in an American Sign Language Animation” at the 7<sup>th</sup> ACM SIGACCESS Conference on Computers and Accessibility (ASSETS’05).

**Best Doctoral Candidate Award.** (2004). The ACM SIGACCESS Conference on Computers and Accessibility.

**Teaching Practicum Award.** (2003-2004). Department of Computer and Information Science, U. Pennsylvania.

**Computing Research Association, Outstanding Undergraduate Research Awards, Honorable Mention.** (2001).

## **Fellowships**

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**National Science Foundation Graduate Research Fellowship.** (2003-2006). Full fellowship for doctoral studies.

**George J. Mitchell Scholarship.** (2001-2002). National fellowship for twelve U.S. students to study in Ireland.

**British Marshall Scholarship.** (Declined to accept Mitchell Scholarship). National fellowship to study in the UK.

**USA Today All-USA Collegiate Academic First Team.** (2001) National scholarship for twenty U.S. students.

**Eugene DuPont Memorial Distinguished Scholar.** (1997-2001). Full scholarship to the University of Delaware.

## **Educational History**

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**University of Pennsylvania,** Department of Computer and Information Science, Philadelphia, Pennsylvania, USA.

Doctor of Philosophy (Ph.D.), 2006. GPA 4.00

Master of Science in Engineering (M.S.E.), 2004. GPA 4.00

Thesis: Generating American Sign Language Classifier Predicates for English-to-ASL Machine Translation.

ASL Courses: American Sign Language (Levels 1 to 5), Fingerspelling (Levels 1 & 2), Deaf Culture, Conversation & Application (Level 4), and Classifier Predicates (Levels 1 & 2).

**National University of Ireland,** University College Dublin, Department of Computer Science, Dublin, Ireland.

Master of Science (M.Sc.), 2002. Research degree: human computer interaction, user-interface design, computer accessibility for people with special user-interface needs.

Master’s Thesis: Designing user-interfaces for illiterate users in developing communities in India.

**University of Delaware,** Department of Computer and Information Science, Newark, Delaware, USA.

Master of Science (M.S.), 2001. GPA 4.00

Honors Bachelor of Science (H.B.S.), 2001. GPA 4.00 Minor in Cognitive Science

Master’s Thesis: Building a natural language generation text-planning component to produce tutorial output for educational software for deaf children learning English writing skills.

Honors: Summa Cum Laude, Top Index Graduating Student (Rank 1 of 3174).

Honor Societies: Phi Kappa Phi, Upsilon Pi Epsilon (Computer Science), Golden Key, Omicron Delta Kappa, Alpha Lambda Delta, National Society of Collegiate Scholars.

## **Funding from University-External Sources**

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Matt Huenerfauth (PI). February 2017 to February 2018. Identifying the Best Methods for Displaying Word-Confidence in Automatically Generated Captions for Deaf and Hard-of-Hearing Users. Google Faculty Research Awards Program. Amount of funding: \$56,902.

Joseph Bochner (PI), Vince Samar (co-PI), Emily Prud’hommeaux (co-PI), Matt Huenerfauth (co-PI). July 2017 to June 2018. Auditory Experience, Critical Periods and the Development of Categorical Perception in Cochlear Implant Users: A Preliminary Investigation. Hearing Health Foundation. Amount of funding: \$23,616.

Larwan Berke (student fellowship recipient), Matt Huenerfauth (faculty advisor). September 2017 to August 2020. National Science Foundation Graduate Research Fellowship (NSF-GRF) to Larwan Berke. Amount of funding: Tuition and stipend for three years, approximate value: \$138,000.

Matt Huenerfauth, PI, Vicki L. Hanson, co-PI, Stephanie Ludi, PI for subcontract to University of North Texas. January 2016 to December 2019. "CCE STEM: Ethical Inclusion of People with Disabilities through Undergraduate Computing Education." National Science Foundation. Amount of funding: \$449,987.

Matt Huenerfauth, PI. September 2014 to August 2018. "CHS: Medium: Collaborative Research: Immediate Feedback to Support Learning American Sign Language through Multisensory Recognition." National Science Foundation, CISE Directorate, IIS Division. Amount of funding: \$537,997.

- Collaborative research project, linked to corresponding NSF research grants to YingLi Tian, P.I., City College, \$557,918 and to Elaine Gale, P.I., Hunter College, \$104,000. Overall project total: \$1,199,915.

Matt Huenerfauth, PI. July 2011 to June 2016. "Generating Accurate Understandable Sign Language Animations Based on Analysis of Human Signing." National Science Foundation, CISE Directorate, IIS Division. Amount of original funding: \$338,005. Amount transferred to RIT in November 2014: \$59,964.

- Additional \$21,000 of supplemental funding from NSF Research Experiences for Undergraduates program.
- Collaborative research project, linked to corresponding NSF research grants to Carol Neidle, P.I., Boston University, for \$385,957 and to Dimitris Metaxas, P.I., Rutgers University, for \$469,996. Overall project total: \$1,214,958.

Matt Huenerfauth, PI. April 2010 to March 2010. "Doctoral Consortium for ASSETS 2010." National Science Foundation, CISE Directorate, IIS Division. Amount of funding: \$27,155.

Matt Huenerfauth, PI. June 2008 to May 2014. "CAREER: Learning to Generate American Sign Language Animation through Motion-Capture and Participation of Native ASL Signers." National Science Foundation, Faculty Early Career Development (CAREER) Award Program, CISE Directorate, IIS Division, HCC Cluster. Amount of funding: \$581,496.

- Additional \$37,000 of supplemental funding from NSF Research Experiences for Undergraduates program.

Matt Huenerfauth, PI. June 2007 to June 2011. "Generating Animations of American Sign Language." Go PLM Academic Grant Program. Siemens A&D UGS PLM Software. Amount: \$633,150.

### **University-Internal Research Funding (2014-Present, Rochester Institute of Technology)**

Matt Huenerfauth (PI). January 2017 to December 2017. "Building a Model of Word Importance in ASR Output." National Technical Institute for the Deaf, Rochester Institute of Technology. Amount: \$33,000.

Matt Dye (PI), Matt Huenerfauth (Mentor), Kim Kurz (Other Personnel). March 2016 to August 2017. "Validity of Avatar Stimuli for Psycholinguistic Research on ASL." Scholarship Portfolio Development Initiative, National Technical Institute for the Deaf, Rochester Institute of Technology. Amount: \$10,000.

Emily Prud'hommeaux (PI), Joseph Bochner (co-PI), Matt Huenerfauth (co-PI), and Vincent Samar (co-PI). June 2016 to May 2017. "Development of categorical perception in sign and speech: preliminary investigations." AdvanceRIT Connect Grants Program. Amount: \$4,620.

Matt Huenerfauth, Joseph Bochner, Emily Prud'hommeaux, Vincent Samar, PIs. January 2016 to January 2018. "Development of Categorical Perception in Sign and Speech: Preliminary Investigations." Research Seed Funding, Golisano College of Computing and Information Sciences, Rochester Institute of Technology. Amount: \$10,000.

Matt Huenerfauth and Michael Stinson, PIs. September 2015 to August 2017. "Creating the Next Generation of Live-Captioning Technologies." Internal Seed Research Funding, Office of the President, National Technical Institute for the Deaf, Rochester Institute of Technology. Amount: \$200,568.

## University-Internal Research Funding (2007-2014, City University of New York)

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- Matt Huenerfauth, PI. January 2013 to December 2013. "Sign Language Eye-tracking Data Analysis and Distribution." Graduate Investment Initiative, Round 16, Queens College, The City University of New York. Amount: \$20,000.
- Matt Huenerfauth, PI. January 2012 to December 2012. "Sign Language Video Analysis for Generating Realistic ASL Animation." Graduate Investment Initiative, Round 15, Queens College, The City University of New York. Amount: \$20,000.
- Andrew Rosenberg, PI. Matt Huenerfauth, co-PI. December 2009 to December 2010. "Generating Expressive Cued Speech from Audio Speech Signals." Research Enhancement Committee, Queens College, The City University of New York. Amount: \$12,800.
- Matt Huenerfauth, PI. December 2008 to December 2009. "Text readability software for adults with intellectual disabilities." Research Enhancement Committee, Queens College, The City University of New York. Amount: \$10,000.
- Award to Computer Science Department (participating faculty: Jinlin Chen, Matt Huenerfauth, Christopher Vickery). 2009. "Eye-Tracking Analysis for User Interface Design." Graduate Investment Initiative, Round 12, Queens College, The City University of New York. Amount: \$30,000.
- Matt Huenerfauth, PI. July 2008 to December 2009. "Educational Software for Deaf Users." Professional Staff Congress - City University of New York (PSC-CUNY) Research Award Program, Regular-Cycle Round 39. Amount: \$3,800.
- Matt Huenerfauth, PI. July 2007 to December 2008. "Evaluating Parameters for American Sign Language Animations." Professional Staff Congress - City University of New York (PSC-CUNY) Research Award Program, Out-Of-Cycle Round 38. Amount: \$4,095.

## Peer-Refereed Journal Articles

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- [J.16] Jigar Gohel, Sedeeq Al-khazraji, Matt Huenerfauth. 2018 (accepted, to appear). "Modeling the Use of Space for Pointing in American Sign Language Animation." *Journal on Technology and Persons with Disabilities*, California State University, Northridge.
- [J.15] Hernisa Kacorri, Matt Huenerfauth, Sarah Ebling, Kasmira Patel, Kellie Menzies, Mackenzie Willard. 2017. "Regression Analysis of Demographic and Technology Experience Factors Influencing Acceptance of Sign Language Animation." *ACM Transactions on Accessible Computing*, 10, 1, Article 3 (April 2017), 33 pages. DOI: <https://doi-org.ezproxy.rit.edu/10.1145/3046787>
- [J.14] Matt Huenerfauth, Elaine Gale, Brian Penly, Sree Pillutla, Mackenzie Willard, Dhananjai Hariharan. 2017. "Evaluation of Language Feedback Methods for Student Videos of American Sign Language." *ACM Transactions on Accessible Computing*, 10, 1, Article 2 (April 2017), 30 pages. DOI: <https://doi-org.ezproxy.rit.edu/10.1145/3046788>
- [J.13] Kevin Rathbun, Larwan Berke, Christopher Caulfield, Michael Stinson, Matt Huenerfauth. 2017. "Eye Movements of Deaf and Hard of Hearing Viewers of Automatic Captions." *Journal on Technology and Persons with Disabilities*, Volume 5, California State University, Northridge. <http://hdl.handle.net/10211.3/190208>
- [J.12] Matt Huenerfauth, Hernisa Kacorri. 2016. "Eyetracking Metrics Related to Subjective Assessments of ASL Animations." *Journal on Technology and Persons with Disabilities*, Volume 4, pp. 69-78, California State University, Northridge. <http://hdl.handle.net/10211.3/180115>
- [J.11] Matt Huenerfauth, Hernisa Kacorri. 2015. "Best Practices for Conducting Evaluations of Sign Language Animation." *Journal on Technology and Persons with Disabilities*, Volume 3, September 2015, California State University, Northridge. <http://hdl.handle.net/10211.3/151184>

- [J.10] Pengfei Lu, Matt Huenerfauth. 2014. “Collecting and Evaluating the CUNY ASL Corpus for Research on American Sign Language Animation.” *Computer Speech & Language*. Volume 28, Issue 3, May 2014, Pages 812–831. Elsevier. doi: 10.1016/j.csl.2013.10.004
- [J.9] Hernisa Kacorri, Pengfei Lu, Matt Huenerfauth. 2013. “Effect of Displaying Human Videos During an Evaluation Study of American Sign Language Animation.” *ACM Transactions on Accessible Computing*. Volume 5, Issue 2, Article 4 (October 2013), 31 pages. doi: 10.1145/2517038
- [J.8] Matt Huenerfauth, Pengfei Lu. 2012. “Effect of Spatial Reference and Verb Inflection on the Usability of American Sign Language Animations.” *Universal Access in the Information Society*: Volume 11, Issue 2 (June 2012), pages 169-184. doi: 10.1007/s10209-011-0247-7.
- [J.7] Pengfei Lu, Matt Huenerfauth. 2011. “Data-Driven Synthesis of Spatially Inflected Verbs for American Sign Language Animation.” *ACM Transactions on Accessible Computing*. Volume 4, Issue 1, Article 4 (November 2011), 29 pages. doi: 10.1145/2039339.2039343
- [J.6] Matt Huenerfauth, Pengfei Lu. 2010. “Accurate and Accessible Motion-Capture Glove Calibration for Sign Language Data Collection.” *ACM Transactions on Accessible Computing*, Volume 3, Number 1, Article 2. New York: ACM Press. 32 pages. doi: 10.1145/1838562.1838564
- [J.5] Matt Huenerfauth. 2009. “A Linguistically Motivated Model for Speed and Pausing in Animations of American Sign Language.” *ACM Transactions on Accessible Computing*. Volume 2, Number 2, Article 9, New York: ACM Press, Pages 1-31. doi: 10.1145/1530064.1530067
- [J.4] Matt Huenerfauth. 2008. “Spatial, Temporal, and Semantic Models for American Sign Language Generation: Implications for Gesture Generation” *International Journal of Semantic Computing*. Volume 2, Number 1, Hackensack, NJ: World Scientific Publishing, pp. 21-45. doi: 10.1142/S1793351X08000336
- [J.3] Matt Huenerfauth, Liming Zhou, Erdan Gu and Jan Allbeck. 2008. “Evaluation of American Sign Language Generation by Native ASL Signers.” *ACM Transactions on Accessible Computing*. Volume 1, Number 1 Article 3, New York: ACM Press, pp. 1-27. doi: 10.1145/1361203.1361206
- [J.2] Matt Huenerfauth. 2008. “Generating American Sign Language animation: overcoming misconceptions and technical challenges.” *Universal Access in the Information Society*, Volume 6, Number 4, Berlin/Heidelberg: Springer, pp. 419-434. doi: 10.1007/s10209-007-0095-7
- [J.1] Matt Huenerfauth. 2006. “Representing Coordination and Non-Coordination in an American Sign Language Animation.” *Behaviour and Information Technology*, Volume 25, Issue 4, London, UK: Taylor & Francis, pp. 285-295. doi: 10.1080/01449290600636769

## Book Chapters

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- [C.7] Hernisa Kacorri, Matt Huenerfauth. 2015. “Comparison of Finite-Repertoire and Data-Driven Facial Expressions for Sign Language Avatars.” *Universal Access in Human-Computer Interaction, Access to Interaction. Lecture Notes in Computer Science*, Volume 9176, pp. 393-403. Switzerland: Springer International Publishing. [peer-reviewed conference paper, published as book chapter]
- [C.6] Hernisa Kacorri, Allen Harper, Matt Huenerfauth. 2014. “Measuring the Perception of Facial Expressions in American Sign Language Animations with Eye Tracking.” *Universal Access in Human-Computer Interaction. Lecture Notes in Computer Science*, Volume 8516, pp. 549-559. Switzerland: Springer International Publishing. [peer-reviewed conference paper, published as book chapter]
- [C.5] Hernisa Kacorri, Pengfei Lu, Matt Huenerfauth. 2013. “Evaluating Facial Expressions in American Sign Language Animations for Accessible Online Information.” *Universal Access in Human-Computer Interaction. Design Methods, Tools, and Interaction Techniques for eInclusion, Lecture Notes in Computer Science* Volume 8009, 2013, pp. 510-519. [peer-reviewed conference paper, published as book chapter]
- [C.4] Pengfei Lu, Matt Huenerfauth. 2011. “Collecting an American Sign Language Corpus through the Participation of Native Signers.” In *Universal Access in Human-Computer Interaction. Applications and*

- Services. Lecture Notes in Computer Science*, Volume 6768, 2011, pp. 81-90 [peer-reviewed conference paper, published as book chapter]
- [C.3] Matt Huenerfauth. 2010. “Representing American Sign Language Classifier Predicates Using Spatially Parameterized Planning Templates.” In M.T. Banich and D. Caccamise (eds.), *Generalization of Knowledge: Multidisciplinary Perspectives*, pp. 157-174. New York: Psychology Press.
- [C.2] Matt Huenerfauth. 2009. “Improving Spatial Reference in American Sign Language Animation through Data Collection from Native ASL Signers.” International Conference on Universal Access in Human-Computer Interaction (UAHCI). San Diego, CA. July 2009. In C. Stephanidis (Ed.), *Universal Access in HCI, Part III, HCII 2009, LNCS 5616*, pp. 530–539, 2009. Berlin/Heidelberg: Springer-Verlag. [peer-reviewed conference paper, published as book chapter]
- [C.1] Matt Huenerfauth and Vicki L. Hanson. 2009. “Sign Language in the Interface: Access for Deaf Signers.” In C. Stephanidis (ed.), *The Universal Access Handbook*, pp. 619-636. Mahwah, NJ: Lawrence Erlbaum Associates.

### Peer-Refereed Papers, published in Conference Proceedings

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- [P.44] Stephanie Ludi, Matt Huenerfauth, Vicki Hanson, Nidhi Palan, and Paula Garcia. 2018 (to appear). Teaching Inclusive Thinking to Undergraduate Students in Computing Programs. In *Proceedings of the 2018 ACM SIGCSE Technical Symposium on Computer Science Education (SIGCSE'18)*. ACM, New York, NY, USA.
- [P.43] Sushant Kafle, Matt Huenerfauth. 2017. Evaluating the Usability of Automatically Generated Captions for People who are Deaf or Hard of Hearing. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'17)*. ACM, New York, NY, USA. [26% paper-acceptance rate]  
**Conference Award: Best Paper Award, ASSETS 2017.**
- [P.42] Matt Huenerfauth, Kasmira Patel, Larwan Berke. 2017. Design and Psychometric Evaluation of an American Sign Language Translation of the System Usability Scale. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'17)*. ACM, New York, NY, USA. [26% paper-acceptance rate]  
**Conference Award: Best Paper Nominee (top 5% of submissions), ASSETS 2017.**
- [P.41] Larwan Berke, Christopher Caulfield, Matt Huenerfauth. 2017. Deaf and Hard-of-Hearing Perspectives on Imperfect Automatic Speech Recognition for Captioning One-on-One Meetings. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'17)*. ACM, New York, NY, USA. [26% paper-acceptance rate]
- [P.40] Khaled Albusays, Stephanie Ludi, Matt Huenerfauth. 2017. Interviews and Observation of Blind Software Developers at Work to Understand Code Navigation Challenges. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'17)*. ACM, New York, NY, USA. [26% paper-acceptance rate]
- [P.39] Nidhi Palan, Matt Huenerfauth, Stephanie Ludi, Vicki Hanson. 2017. Teaching Inclusive Thinking in Undergraduate Computing. In *Proceedings of the 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'17)*. ACM, New York, NY, USA.
- [P.38] Lisa Elliot, Michael Stinson, James Mallory, Donna Easton, Matt Huenerfauth. 2016. Deaf and Hard of Hearing Individuals’ Perceptions of Communication with Hearing Colleagues in Small Groups. In *Proceedings of the 18th Annual SIGACCESS Conference on Computers and Accessibility (ASSETS'17)*. Reno, Nevada, USA. New York: ACM Press.
- [P.37] Sushant Kafle, Matt Huenerfauth. 2016. “Effect of Speech Recognition Errors on Text Understandability for People who are Deaf or Hard of Hearing.” *Proceedings of the 7th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), INTERSPEECH 2016*, San Francisco, CA, USA.

- [P.36] Hernisa Kacorri, Matt Huenerfauth. 2016. Selecting Exemplar Recordings of American Sign Language Non-Manual Expressions for Animation Synthesis Based on Manual Sign Timing. *Proceedings of the 7th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), INTERSPEECH 2016*, San Francisco, CA, USA.
- [P.35] Hernisa Kacorri, Matt Huenerfauth. 2016. “Continuous Profile Models in ASL Syntactic Facial Expression Synthesis.” *Proceedings of the 54rd Annual Meeting on Association for Computational Linguistics (ACL '16)*. Association for Computational Linguistics, Stroudsburg, PA, USA. [28% paper-acceptance rate]
- [P.34] Chenyang Zhang, Yingli Tian, Matt Huenerfauth. 2016. “Multi-Modality American Sign Language Recognition.” *Proceedings of the IEEE International Conference on Image Processing (ICIP 2016)*, Phoenix, Arizona, USA.
- [P.33] Mark Dilsizian, Zhiqiang Tang, Dimitris Metaxas, Matt Huenerfauth, Carol Neidle. 2016. “The Importance of 3D Motion Trajectories for Computer-based Sign Recognition.” *Proceedings of the 7th Workshop on the Representation and Processing of Sign Languages: Corpus Mining, The 10th International Conference on Language Resources and Evaluation (LREC 2016)*, Portoroz, Slovenia. <https://www.researchgate.net/publication/306083052>
- [P.32] Hernisa Kacorri, Ali Raza Syed, Matt Huenerfauth, Carol Neidle. 2016. “Centroid-Based Exemplar Selection of ASL Non-Manual Expressions using Multidimensional Dynamic Time Warping and MPEG4 Features.” *Proceedings of the 7th Workshop on the Representation and Processing of Sign Languages: Corpus Mining, The 10th International Conference on Language Resources and Evaluation (LREC 2016)*, Portoroz, Slovenia.
- [P.31] Hernisa Kacorri, Matt Huenerfauth, Sarah Ebling, Kasmira Patel, Mackenzie Willard. 2015. “Demographic and Experiential Factors Influencing Acceptance of Sign Language Animation by Deaf Users.” *Proceedings of the 17th Annual SIGACCESS Conference on Computers and Accessibility (ASSETS'15)*, Lisbon, Portugal. ACM, New York, NY, USA, 147-154. DOI=10.1145/2700648.2809860 [23% paper-acceptance rate]
- [P.30] Matt Huenerfauth, Elaine Gale, Brian Penly, Mackenzie Willard, Dhananjai Hariharan. 2015. “Comparing Methods of Displaying Language Feedback for Student Videos of American Sign Language.” *Proceedings of the 17th Annual SIGACCESS Conference on Computers and Accessibility (ASSETS'15)*, Lisbon, Portugal. ACM, New York, NY, USA, 139-146. DOI= 10.1145/2700648.2809859 [23% paper-acceptance rate]
- [P.29] Matt Huenerfauth, Pengfei Lu, Hernisa Kacorri. 2015. “Synthesizing and Evaluating Animations of American Sign Language Verbs Modeled from Motion-Capture Data.” *Proceedings of the 6th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT'15), held at INTERSPEECH 2015*, Dresden, German, September 11, 2015.
- [P.28] Hernisa Kacorri, Matt Huenerfauth. 2015. “Evaluating a Dynamic Time Warping Based Scoring Algorithm for Facial Expressions in ASL Animations.” *Proceedings of the 6th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT'15), held at INTERSPEECH 2015*, Dresden, German, September 11, 2015.
- [P.27] Sarah Ebling, Matt Huenerfauth. 2015. “Bridging the Gap Between Sign Language Machine Translation and Sign Language Animation Using Sequence Classification.” *Proceedings of the 6th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT'15), held at INTERSPEECH 2015*, Dresden, German, September 11, 2015.
- [P.26] Matt Huenerfauth, Hernisa Kacorri. 2015. “Augmenting EMBR Virtual Human Animation System with MPEG-4 Controls for Producing ASL Facial Expressions.” *The 5th International Workshop on Sign Language Translation and Avatar Technologies (SLTAT)*, Paris, France, April 9-20, 2015.
- [P.25] Hernisa Kacorri, Matt Huenerfauth. 2014. “Implementation and Evaluation of Animation Controls Sufficient for Conveying ASL Facial Expressions.” *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS'14)*, Rochester, New York, USA.

- [P.24] Matt Huenerfauth, Hernisa Kacorri. 2014. "Release of Experimental Stimuli and Questions for Evaluating Facial Expressions in Animations of American Sign Language." *Proceedings of the 6th Workshop on the Representation and Processing of Sign Languages: Beyond the Manual Channel, The 9th International Conference on Language Resources and Evaluation (LREC 2014)*, Reykjavik, Iceland.
- [P.23] Hernisa Kacorri, Allen Harper, Matt Huenerfauth. 2013. "Comparing Native Signers Perception of American Sign Language Animations and Videos via Eye Tracking." In *Proceedings of the 15th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '13)*. ACM, New York, NY, USA, Article 9, 8 pages. DOI=10.1145/2513383.2513441 [29% paper-acceptance rate]
- [P.22] Pengfei Lu, Matt Huenerfauth. 2012. "Learning a Vector-Based Model of American Sign Language Inflecting Verbs from Motion-Capture Data." *Proceedings of the Third Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), The 2012 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies (NAACL-HLT 2012)*, Montreal, Quebec, Canada. East Stroudsburg, PA: Association for Computational Linguistics.
- [P.21] Pengfei Lu, Matt Huenerfauth. 2012. "CUNY American Sign Language Motion-Capture Corpus: First Release." *Proceedings of the 5th Workshop on the Representation and Processing of Sign Languages: Interactions between Corpus and Lexicon, The 8th International Conference on Language Resources and Evaluation (LREC 2012)*, Istanbul, Turkey.
- [P.20] Pengfei Lu, Matt Huenerfauth. 2011. "Synthesizing American Sign Language Spatially Inflected Verbs from Motion-Capture Data." *The Second International Workshop on Sign Language Translation and Avatar Technology (SLTAT), The 13th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2011)*, Dundee, Scotland, United Kingdom.
- [P.19] Matt Huenerfauth, Pengfei Lu and Andrew Rosenberg. 2011. "Evaluating Importance of Facial Expression in American Sign Language and Pidgin Signed English Animations." *The 13th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2011)*, Dundee, Scotland, United Kingdom. New York: ACM Press. [30% paper-acceptance rate]
- [P.18] Martin Jansche, Lijun Feng, Matt Huenerfauth. 2010. "Reading Difficulty in Adults with Intellectual Disabilities: Analysis with a Hierarchical Latent Trait Model." *The 12th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2010), Poster Session*, Orlando, Florida, USA. New York: ACM Press, pp. 277-278. [54% paper-acceptance rate]
- [P.17] Matt Huenerfauth, Pengfei Lu. 2010. "Modeling and Synthesizing Spatially Inflected Verbs for American Sign Language Animations." *The 12th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2010)*, Orlando, Florida, USA. New York: ACM Press, pp. 99-106. [31% paper-acceptance rate]
- [P.16] Lijun Feng, Martin Jansche, Matt Huenerfauth, Noémie Elhadad. 2010. "A Comparison of Features for Automatic Readability Assessment." In *Proceedings of The 23rd International Conference on Computational Linguistics (COLING 2010)*, Beijing, China, Poster Volume. East Stroudsburg, PA: Association for Computational Linguistics, pp. 276-284. [42% paper-acceptance rate]
- [P.15] Pengfei Lu, Matt Huenerfauth. 2010. "Collecting a Motion-Capture Corpus of American Sign Language for Data-Driven Generation Research." In *Proceedings of the First Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), Human Language Technologies: The 11th Annual Conference of the North American Chapter of the Association for Computational Linguistics (HLT-NAACL 2010)*, Los Angeles, CA, USA. East Stroudsburg, PA: Association for Computational Linguistics, pp. 89-97.
- [P.14] Matt Huenerfauth, Pengfei Lu. 2010. "Eliciting Spatial Reference for a Motion-Capture Corpus of American Sign Language Discourse." In *Proceedings of the Fourth Workshop on the Representation and Processing of Signed Languages: Corpora and Sign Language Technologies, The 7th International Conference on Language Resources and Evaluation (LREC 2010)*, Valetta, Malta. Paris: European Language Resources Association, pp. 121-124.



- [P.13] Matt Huenerfauth, Lijun Feng, Noémie Elhadad. 2009. “Comparing Evaluation Techniques for Text Readability Software for Adults with Intellectual Disabilities.” In Proceedings of the 11th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2009), Pittsburgh, Pennsylvania, USA. New York: ACM Press, pp. 3-10. [32% paper-acceptance rate]
- [P.12] Pengfei Lu, Matt Huenerfauth. 2009. “Accessible Motion-Capture Glove Calibration Protocol for Recording Sign Language Data from Deaf Subjects.” In Proceedings of the 11th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2009), Pittsburgh, Pennsylvania, USA. New York: ACM Press, pp. 83-90. [32% paper-acceptance rate]
- [P.11] Lijun Feng, Noemie Elhadad, Matt Huenerfauth. 2009. “Cognitively Motivated Features for Readability Assessment,” In Proceedings of the 12th Conference of the European Chapter of the Association for Computational Linguistics (EACL 2009), Athens, Greece. East Stroudsburg, PA: Association for Computational Linguistics, pp. 229-237. [28% paper-acceptance rate]
- [P.10] Matt Huenerfauth. 2008. “Evaluation of a Psycholinguistically Motivated Timing Model for Animations of American Sign Language.” In Proceedings of the 10th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2008), Halifax, Nova Scotia, Canada. New York: ACM Press, pp. 129-136. [37% paper-acceptance rate, candidate for Best Paper Award]
- [P.9] Matt Huenerfauth, Liming Zhou, Erdan Gu and Jan Allbeck. 2007. “Evaluating American Sign Language Generation Through the Participation of Native ASL Signers.” In Proceedings of the 9th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2007), Tempe, AZ, USA. New York: ACM Press, pp. 211-218. [31% paper-acceptance rate]  
**Conference Award: Best Paper Award, ASSETS 2007.**
- [P.8] Matt Huenerfauth, Liming Zhou, Erdan Gu and Jan Allbeck. 2007. “Design and Evaluation of an American Sign Language Generator.” In Proceedings of the Workshop on Embodied Language Processing (EmbodiedNLP 2007), The 45th Annual Meeting of the Association for Computational Linguistics (ACL 2007), Prague, Czech Republic. East Stroudsburg, PA: Association for Computational Linguistics, pp. 51-58.
- [P.7] Matt Huenerfauth. 2005. “Representing Coordination and Non-Coordination in an American Sign Language Animation.” In Proceedings of the 7th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2005), Baltimore, MD, USA. New York: ACM Press, pp. 44-51.  
**Conference Award: Best Paper Award, ASSETS 2005.**
- [P.6] Matt Huenerfauth. 2005. “American Sign Language Spatial Representations for an Accessible User-Interface.” In Proceedings of the 3rd International Conference on Universal Access in Human-Computer Interaction (UAHCI 2005), Las Vegas, NV, USA.
- [P.5] Matt Huenerfauth. 2005. “American Sign Language Generation: Multimodal NLG with Multiple Linguistic Channels.” In Proceedings of the Student Research Workshop, Association for Computational Linguistics, 43rd Annual Meeting (ACL 2005), Ann Arbor, MI, USA. East Stroudsburg, PA: Association for Computational Linguistics.
- [P.4] Matt Huenerfauth. 2004. “Spatial and Planning Models of ASL Classifier Predicates for Machine Translation.” In Proceedings of the 10th International Conference on Theoretical and Methodological Issues in Machine Translation (TMI 2004), Baltimore, MD, USA.
- [P.3] Matt Huenerfauth. 2004. “Spatial Representation of Classifier Predicates for Machine Translation into American Sign Language.” In Proceedings of the Workshop on the Representation and Processing of Signed Languages, The 4th International Conference on Language Resources and Evaluation (LREC 2004), Lisbon, Portugal. Paris: European Language Resources Association.
- [P.2] Matt Huenerfauth. 2004. “A Multi-Path Architecture for Machine Translation of English Text into American Sign Language Animation.” In Proceedings of the Student Research Workshop at the Human Language Technologies conference / North American chapter of the Association for Computational Linguistics (HLT-NAACL 2004), Boston, MA, USA. East Stroudsburg, PA: Association for Computational Linguistics.

- [P.1] Matt Huenerfauth. 2002. "Design Approaches for Developing User-Interfaces Accessible to Illiterate Users." In Proceedings of the Intelligent and Situation-Aware Media and Presentations Workshop, American Association of Artificial Intelligence Conference (AAAI 2002), Edmonton, Alberta, Canada.

## Edited Volumes

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- [E.25] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 10, Issue 4 (October 2017)
- [E.24] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 10, Issue 3 (August 2017)
- [E.23] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 10, Issue 2 (April 2017)
- [E.22] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. Special Issue (Part 2) of Papers from Assets 2015. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 10, Issue 1 (April 2017)
- [E.21] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. Special Issue (Part 1) of Papers from Assets 2015. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 9, Issue 4 (April 2017)
- [E.20] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 9, Issue 3 (February 2017)
- [E.19] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2017. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 9, Issue 2 (January 2017)
- [E.18] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2016. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 9, Issue 1 (November 2016)
- [E.17] Jinjuan Heidi Feng (General Chair) and Matt Huenerfauth (Program Chair). 2016. *Proceedings of the 18th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, USA.
- [E.16] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2016. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 8, Issue 4 (May 2016)
- [E.15] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2016. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 8, Issue 3 (May 2016)
- [E.14] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2016. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 8, Issue 2 (January 2016)
- [E.13] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2016. Special Issue (Part 1) of Papers from Assets 2014. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 8, Issue 1 (January 2016)
- [E.12] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 7, Issue 4 (November 2015)
- [E.11] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. Special Issue (Part 2) of Papers from Assets 2013. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 7, Issue 3 (November 2015)
- [E.10] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. Special Issue on Speech and Language Processing for AT (Part 3). *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 7, Issue 2 (July 2015)
- [E.9] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 7, Issue 1 (June 2015)
- [E.8] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. Special Issue on Speech and Language Processing for AT (Part 2). *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 6, Issue 4 (June 2015)

- [E.7] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. Special Issue on Speech and Language Processing for AT (Part 1). *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 6, Issue 3 (June 2015)
- [E.6] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. Special Issue (Part 1) of Papers from Assets 2013. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 6, Issue 2 (March 2015)
- [E.5] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2015. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 6, Issue 1 (March 2015)
- [E.4] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2014. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 5, Issue 4 (March 2014)
- [E.3] Matt Huenerfauth and Kathleen F. McCoy (Eds.). 2014. *ACM Transactions on Accessible Computing* (TACCESS) journal, Volume 5, Issue 3 (January 2014)
- [E.2] Matt Huenerfauth (General Chair) and Sri Kurniawan (Program Chair). 2012. *Proceedings of the 14th International ACM SIGACCESS Conference on Computers and Accessibility*. ACM, New York, NY, USA.
- [E.1] Matt Huenerfauth and Bo Pang (Doctoral Consortium Chairs). 2006. *Proceedings of the Doctoral Consortium, Human Language Technology Conference of the North American Chapter of the Association of Computational Linguistics*. Association for Computational Linguistics.

## Theses

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- [T.3] Matt Huenerfauth. 2006. Generating American Sign Language Classifier Predicates for English-to-ASL Machine Translation. Doctoral Dissertation, Computer and Information Science, University of Pennsylvania.
- [T.2] Matt Huenerfauth. 2002. Developing Design Recommendations for Computer Interfaces Accessible to Illiterate Users. M.Sc. Thesis, Computer Science, National University of Ireland, University College Dublin.
- [T.1] Matt Huenerfauth. 2001. Development of PeTaLS: Personality Tagged Logical Statistical Generator. M.S. Thesis, Computer and Information Sciences, University of Delaware.

## Other Publications

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- [O.20] Larwan Berke, Matt Huenerfauth. 2017. Displaying Confidence from Imperfect Automatic Speech Recognition for Captioning. *Effective Access Technologies Conference*, Rochester, New York, USA. April 21, 2017. Poster Presentation. **Award: 2<sup>nd</sup> Place, Best Poster Award Competition 2017.**
- [O.19] Sedeeq Al-khazraji and Matt Huenerfauth. 2017. Modeling the Speed and Timing of American Sign Language to Generate Animations. *Effective Access Technologies Conference*, Rochester, New York, USA. April 21, 2017. Poster Presentation.
- [O.18] Khaled Albusays, Matt Huenerfauth, and Stephanie Ludi. 2017. Towards a Better Understanding of Code Navigation Challenges Faced by Developers who are Blind: Requirements Elicitation Study. *Effective Access Technologies Conference*, Rochester, New York, USA. April 21, 2017. Poster Presentation.
- [O.17] Sushant Kafle and Matt Huenerfauth. 2017. Effect of Speech Recognition Errors on Text Understandability for People who are Deaf or Hard of Hearing. *Effective Access Technologies Conference*, Rochester, New York, USA. April 21, 2017. Poster Presentation.
- [O.16] Larwan Berke, Aiko Resendiz, Kasmira Patel, Anmol Kaur, and Matt Huenerfauth. 2017. Creating a Training Dataset for an Automatic Educational Feedback System for American Sign Language Students. *Effective Access Technologies Conference*, Rochester, New York, USA. April 21, 2017. Poster Presentation.

- [O.15] Hernisa Kacorri, Matt Huenerfauth. 2017. Continuous Profile Models in ASL Syntactic Facial Expression Synthesis. *The 11<sup>th</sup> Annual Machine Learning Symposium*, New York Academy of Sciences, New York, NY, USA. March 3, 2017. Poster Presentation.
- [O.14] Sushant Kafle and Matt Huenerfauth. 2017. Modeling the Effect of Speech Recognition Errors on Text Understandability for People who are Deaf or Hard of Hearing. *Move 78 Retreat on Artificial Intelligence*, Rochester Institute of Technology, Rochester, New York, USA. February 17, 2017. Poster Presentation.
- [O.13] Larwan Berke, Kasmira Patel, Aiko Resendiz, Anmol Kaur, and Matt Huenerfauth. 2017. Creating a Training Dataset for an Automatic Educational Feedback System for American Sign Language Students. *Move 78 Retreat on Artificial Intelligence*, Rochester Institute of Technology, Rochester, New York, USA. February 17, 2017. Poster Presentation.
- [O.12] Sedeeq Al-khazraji and Matt Huenerfauth. 2017. Modeling the Speed and Timing of American Sign Language to Generate Animations. *Move 78 Retreat on Artificial Intelligence*, Rochester Institute of Technology, Rochester, New York, USA. February 17, 2017. Poster Presentation.
- [O.11] Jinjuan Heidi Feng, Matt Huenerfauth. 2017. Overview of the ASSETS 2016 Conference. *SIGACCESS Accessibility and Computing*. New York: ACM Press. Issue 117 (January 2017).
- [O.10] Larwan Berke, Sushant Kafle, Christopher Caulfield, Matt Huenerfauth, and Michael Stinson. 2017. “Making the Best of Imperfect Automatic Speech Recognition for Captioning One-on-One Meetings.” *NTID Scholarship Symposium, National Technical Institute for the Deaf*, Rochester, NY, January 12, 2017. [http://www.ntid.rit.edu/sites/default/files/pd/symposium\\_program\\_2017.pdf](http://www.ntid.rit.edu/sites/default/files/pd/symposium_program_2017.pdf)
- [O.9] Lisa Elliot, Michael Stinson, Donna Easton, James Mallory, and Matt Huenerfauth. 2017. “Communication Strategies in the Workplace Survey.” *NTID Scholarship Symposium, National Technical Institute for the Deaf*, Rochester, NY, January 12, 2017. [http://www.ntid.rit.edu/sites/default/files/pd/symposium\\_program\\_2017.pdf](http://www.ntid.rit.edu/sites/default/files/pd/symposium_program_2017.pdf)
- [O.8] Michael Stinson, James Mallory, Lisa Elliot, Michael Stinson, Donna Easton, and Matt Huenerfauth. 2017. “Field Study of Using Automatic Speech Recognition to Facilitate Communication between Deaf Students and Hearing Customers.” *NTID Scholarship Symposium, National Technical Institute for the Deaf*, Rochester, NY, January 12, 2017. [http://www.ntid.rit.edu/sites/default/files/pd/symposium\\_program\\_2017.pdf](http://www.ntid.rit.edu/sites/default/files/pd/symposium_program_2017.pdf)
- [O.7] Matt Huenerfauth, Elaine Gale, Brian Penly, Mackenzie Willard, Dhananjai Hariharan. 2015. “Designing Tools to Facilitate Students Learning American Sign Language.” *Effective Access Technologies Conference*, Rochester, New York, USA. November 10, 2015. Poster Presentation. **Finalist for Best Poster Award 2015.**
- [O.6] Hernisa Kacorri, Matt Huenerfauth, Sarah Ebling, Kasmira Patel, Mackenzie Willard, Kellie Menzies. 2015. “Measuring Participant Characteristics that Relate to Sign Language Technology Acceptance.” *Effective Access Technologies Conference*, Rochester, New York, USA. November 10, 2015. Poster Presentation.
- [O.5] Matt Huenerfauth. 2014. “Learning to Generate Understandable Animations of American Sign Language.” *Effective Access Technologies Conference*, Rochester, New York, USA. June 17-18, 2014. 6 pages. **Finalist for Best Poster Award 2014.**
- [O.4] Matt Huenerfauth. 2010. “Participation of High School and Undergraduate Students who are Deaf in Research on American Sign Language Animation.” *ACM SIGACCESS Accessibility and Computing*. New York: ACM Press. Issue 97 (June 2010).
- [O.3] Matt Huenerfauth. 2005. “American Sign Language Natural Language Generation and Machine Translation.” *ACM SIGACCESS Accessibility and Computing*. New York: ACM Press. Issue 81 (January 2005).
- [O.2] Matt Huenerfauth. 2004. “American Sign Language Natural Language Generation and Machine Translation.” Doctoral Consortium Presentation and Poster Session at the 6th International ACM

SIGACCESS Conference on Computers and Accessibility (ASSETS 2004), Atlanta, GA, USA.  
**Conference Award:** Best Doctoral Candidate Award, Delivered Closing Plenary Address, ASSETS 2004.

- [O.1] Matt Huenerfauth. 2003. A Survey and Critique of American Sign Language Natural Language Generation and Machine Translation Systems. Technical Report MS-CIS-03-32, Computer and Information Science, University of Pennsylvania.

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**Service to the Profession: Leadership Roles** (2006 to present, ongoing activities listed first)

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- Editor-in-Chief**, the *ACM Transactions on Accessible Computing* (TACCESS) journal, Association for Computing Machinery, August 2013 to Present. Leading research journal in the field of accessible computing, indexed by Elsevier Scopus and Clarivate (formerly Thompson Reuters) Emerging Sources Citation Index (ESCI).
- Vice-Chair**, Special Interest Group on Accessible Computing (SIGACCESS), Association for Computing Machinery (ACM), January 2015 to Present. (Elected by researchers in the field for a three-year term.)
- Program Chair**, The 18th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2016), Reno, Nevada, USA. (The program chair oversees the review process and technical paper selection.)
- Steering Committee**, The International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS), October 2012 to Present. (This advisory committee consists of former general chairs of the conference.)
- Vice-President**, Special Interest Group on Speech and Language Processing for Assistive Technologies (SLPAT), Association for Computational Linguistics (ACL), January 2013 to January 2015.
- General Chair**, The 14th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2012), Boulder, Colorado, USA. (The general chair is the lead of the organizing committee of the conference.)
- Associate Editor**, the *ACM Transactions on Accessible Computing* (TACCESS) journal, Association for Computing Machinery, 2011 to 2013.
- Editorial Board**, the *ACM Transactions on Accessible Computing* (TACCESS) journal, Association for Computing Machinery, 2008 to Present.
- Associate Chair (AC)**, paper/notes subcommittee on Usability, Accessibility and User Experience, The 31th ACM CHI Conference on Human Factors in Computing Systems (CHI-2013), Paris, France.
- Organizing Committee Member**, The 2nd International Workshop on Sign Language Translation and Avatar Technology (SLTAT) held at the 13th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2011), Dundee, Scotland, UK.
- Doctoral Consortium Chair**, The 12th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2010), Orlando, Florida, USA.
- Student Research Competition Co-Chair**, The 10th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2008), Halifax, Canada.
- Publicity Chair**, The 9th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2007), Tempe, AZ, USA.
- Co-Chair**, Doctoral Student Consortium at the Human Language Technology conference - North American chapter of the Association for Computational Linguistics annual meeting (HLT-NAACL) 2006 in New York, NY, USA.

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**Service to the Profession: Program Committees** (2006 to present, ongoing activities listed first)

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- Program Committee Member**, The 8<sup>th</sup> Workshop on the Representation and Processing of Sign Languages: Involving the Language Community, at the Language Resources and Evaluation Conference (LREC'18), Miyazaki, Japan.
- Program Committee Member**, The 2018 Conference of the North American Chapter of the Association for Computational Linguistics - Human Language Technologies (NAACL NLT 2018), New Orleans, LA, USA.

- Program Committee Member**, The 19th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2017), Baltimore, Maryland, USA.
- Program Committee Member**, The 4th Annual Effective Access Technology Conference, Rochester Institute of Technology, Rochester, New York, USA.
- Program Committee Member**, The 32nd Annual International Technology and Persons with Disabilities Conference (CSUN 2017), Scientific/Research Track, San Diego, CA, USA. February 27 to March 4, 2017.
- Program Committee Member**, The 7th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), held at INTERSPEECH 2016, San Francisco, CA, USA. September 13, 2016.
- Program Committee Member**, The 18th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2016), Reno, Nevada, USA.
- Program Committee Member**, The 13th International Web for All Conference (Web4All-W4A2016), April 2016, Montreal, Quebec, Canada.
- Program Committee Member**, The 6th International Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), held at INTERSPEECH 2015, Dresden, Germany. September 11, 2015.
- Program Committee Member**, The 17th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2015), Lisbon, Portugal.
- Program Committee Member**, The 12th International Web for All Conference (Web4All-W4A2015), May 2015, Florence, Italy.
- Program Committee Member**, Fifth Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), Workshop of ACL 2014, June 2014, Baltimore, MD, USA.
- Program Committee Member**, The 16th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2014), Rochester, NY, USA.
- Program Committee Member**, The 11th International Web for All Conference (Web4All-W4A2014), April 2014, Seoul, Korea.
- Scientific Committee Member**, Special Issue of the *Journal of Applied Linguistics* on “Readability and text Simplification for Education,” 2013.
- Program Committee Member**, The 15th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2013), Bellevue, Washington, USA.
- Program Committee Member**, Fourth Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), Satellite Workshop of INTERSPEECH 2013, August 2013, Grenoble, France.
- Program Committee Member**, Second Workshop on Predicting and Improving Text Readability for Target Reader Populations (PITR), held at the 51st Annual Meeting of the Association for Computational Linguistics (ACL 2013), Sofia, Bulgaria.
- Program Committee Member**, The 10th International Cross-Disciplinary Conference on Web Accessibility (Web4All-W4A2013), May 2013, Rio de Janeiro, Brazil.
- Program Committee Member**, The 14th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2012), Boulder, Colorado, USA.
- Program Committee Member**, Third Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), held at The 13th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, 2012, Montreal, Quebec, Canada.
- Program Committee Member**, Workshop on Predicting and Improving Text Readability, held at The 13th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, 2012, Montreal, Quebec, Canada.

**Program Committee Member**, Student Research Workshop and Doctoral Consortium, held at The 13th Annual Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies, 2012, Montreal, Quebec, Canada.

**Program Committee Member**, The 9th International Cross-Disciplinary Conference on Web Accessibility (Web4All-W4A2012).

**Program Committee Member**, The 13th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2011), Dundee, Scotland, UK.

**Program Committee Member**, Second Workshop on Speech and Language Processing for Assistive Technologies (SLPAT) held at the Conference on Empirical Methods in Natural Language Processing (EMNLP-2011), Edinburgh, Scotland, UK.

**Program Committee Member**, The 8th International Cross-Disciplinary Conference on Web Accessibility (W4A-2011), Hyderabad, Andhra Pradesh, India.

**Program Committee Member**, The 12th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2010), Orlando, Florida, USA.

**Program Committee Member**, First Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), held at Human Language Technologies: The 11th Annual Conference of the North American Chapter of the Association for Computational Linguistics, June 2010, Los Angeles, CA, USA.

**Program Committee Member**, The Second IASTED International Conference on Telehealth and Assistive Technology (TAT 2009), Cambridge, MA, USA.

**Program Committee Member**, The 11th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2009), Pittsburgh, PA, USA.

**Program Committee Member**, The 10th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2008), Halifax, Canada.

**Program Committee Member**, The IASTED International Conference on Assistive Technologies (AT 2008), Baltimore, MD, USA.

**Program Committee Member**, The 9th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2007), Tempe, AZ, USA.

**Program Committee Member**, Student Session, INLG 2006: Meeting of the Special Interest Group in Natural Language Generation (SIGGEN), COLING/ACL 2006: International Committee on Computational Linguistics and the Association for Computational Linguistics Joint Conference, Sydney, Australia.

### **Service to the Profession: Reviewing (2006 to present, ongoing activities listed first)**

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**Reviewer**, The 33rd ACM CHI Conference on Human Factors in Computing Systems (CHI-2018), Montreal.

**Review Panelist**, U.S. National Science Foundation, Directorate for Computer & Information Science & Engineering, Intelligent and Information Systems Division, Spring 2017.

**Reviewer**, The 32nd ACM CHI Conference on Human Factors in Computing Systems (CHI-2017), Denver, CO.

**Reviewer**, The ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp-2016), Heidelberg, Germany.

**Reviewer**, The ACM Symposium on Applied Perception (SAP-2016), Anaheim, CA.

**Reviewer**, The 29<sup>th</sup> ACM User Interface Software and Technology Symposium (UIST-2016), Tokyo, Japan.

**Reviewer**, The 31th ACM CHI Conference on Human Factors in Computing Systems (CHI-2016), San Jose, CA.

**Reviewer**, The 30th ACM CHI Conference on Human Factors in Computing Systems (CHI-2015), Seoul, Korea.

- **Special recognition award for exceptional review, CHI 2015 Paper and Notes.**

**Reviewer**, The 3rd International Workshop on Sign Language Translation and Avatar Technology (SLTAT), Chicago, Illinois, USA. October 18-19, 2013.

**Journal Reviewer**, the *Computer Speech and Language (CSL)* journal special issue, January 2013.

**Ad Hoc Proposal Reviewer**, U.S. National Science Foundation, Directorate for Computer & Information Science & Engineering, Intelligent and Information Systems Division, December 2012.

**Journal Reviewer**, the *Computer Speech and Language (CSL)* journal special issue, March 2012.

**Reviewer**, The 30th ACM CHI Conference on Human Factors in Computing Systems (CHI-2012), Austin, TX, USA.

**Journal Reviewer**, the *Machine Translation (MT)* journal, June 2011.

**Reviewer**, The 29th ACM CHI Conference on Human Factors in Computing Systems (CHI-2011), Vancouver, BC, Canada.

**Ad Hoc Proposal Reviewer**, U.S. National Science Foundation, Directorate for Education and Human Resources, June 2010.

**Reviewer**, The 23rd International Conference on Computational Linguistics (COLING 2010), Beijing, China.

**Ad Hoc Proposal Reviewer**, U.S. National Science Foundation, Directorate for Computer & Information Science & Engineering, Intelligent and Information Systems Division, March 2010.

**Review Panelist**, U.S. National Science Foundation, Directorate for Computer & Information Science & Engineering, Intelligent and Information Systems Division, Spring 2009.

**Ad Hoc Reviewer**, ACM Symposium on User Interface Software and Technology (UIST), May 2009.

**Journal Reviewer**, *Journal of Artificial Intelligence Research (JAIR)*, April 2009.

**Journal Reviewer**, the *Machine Translation (MT)* journal, March 2009.

**Ad Hoc Proposal Reviewer**, U.S. National Science Foundation, Directorate for Computer & Information Science & Engineering, Intelligent and Information Systems Division, February 2009.

**Ad Hoc Proposal Reviewer**, U.S. National Science Foundation, Directorate for Computer & Information Science & Engineering, Intelligent and Information Systems Division, February 2008.

**Journal Reviewer**, ACM Transactions on Accessible Computing, Association for Computing Machinery, 2007.

### **Service to the Profession: Other Activities** (2006 to present, ongoing activities listed first)

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**Participant**, Teach Access initiative. This collaboration between higher education institutions and technology companies has goals of: adding accessibility topics to computing curricula, expanding the study of accessible technology development, creating online learning tools on accessibility, and modifying corporate hiring practices such that standard job descriptions will include a preference for accessibility knowledge and that recruitment activities will focus on accessibility. The group has met via teleconference and in-person at events at the CSUN 2016 conference and at an April 2016 Kick-start Workshop event at Yahoo! in Sunnyvale, CA. March 2016 to Present.

**Participant**, UW CSE/MSR Summer Institute on “Expanding Accessibility Research,” an annual invitation-only gathering of thought leaders on a timely research topic, co-sponsored by University of Washington Computer Science & Engineering department and Microsoft Research, Union, WA, USA, July 5-8, 2016.

**Participant**, Strategic Planning Committee on Assistive Technology and Universal Design, Interagency Committee on Disability Research (IDCR), U.S. Federal Government, October 2015.

**Partner**, AccessComputing, NSF-funded program based at the University of Washington to broadening participation in computing for people with disabilities, 2011 to Present.



**Participant**, AccessComputing Leadership Institute, organized by the AccessComputing program at the University of Washington to bring together leaders and emerging leaders to share best practices and funding for broadening participation in computing for people with disabilities, Seattle, WA, November 6-7, 2008.

**Member of the Faculty Working Group**, Summit to Create a Cyber-Community to Advance Deaf and Hard-of-Hearing Individuals in STEM (DHH Cyber-Community), NSF-funded summit lead by U. Washington and Rochester Institute of Technology with 50 invited leaders in science, technology, engineering, and mathematics (STEM) education for deaf and hard-of-hearing students, Rochester, NY, June 25-28, 2008.

### **Service Activities within College/University (2014 to present, Rochester Institute of Technology)**

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**Program Coordinator**, HCI Masters Program, Department of Information Sciences and Technology, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Fall 2015-Present.

**Committee Member**, Curriculum Committee, Department of Information Sciences and Technology, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Fall 2015-Present.

**Committee Member**, Assessment Committee, Department of Information Sciences and Technology, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Fall 2015-Present.

**Committee Member (IST Departmental Representative)**, Outstanding Scholar Committee, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Spring 2016 to Spring 2018.

**Member**, Working Group, Initiative to Study the Use of Automatic Speech Recognition in Educational Environment for People who are Deaf or Hard of Hearing, Office of the President of NTID, faculty and researchers from across RIT are meeting regularly to plan a research initiative in this area, Fall 2015 to Present.

**Committee Member**, Linguistics / Language Science Curriculum Committee, interdisciplinary curriculum committee with representatives from across the institute, Rochester Institute of Technology, Fall 2016-Present.

**Member**, Presidential Search Committee, serving as a faculty representative on the committee to search for the next president of the Rochester Institute of Technology (RIT), June to December 2016.

**Committee Member**, Research Seed Funding Review Committee, Deans Office, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, January 2017.

**Moderator**, research retreat hosted by the Associate Dean for Research of National Technical Institute for the Deaf, with participation of four faculty from other RIT colleges who collaborate closely with NTID, January 10, 2017.

**Course Lead**, HCIN-730 “User Centered Design Methods” and HCIN-735 “Collaboration Technology and Human Experience,” Department of Information Sciences and Technology, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, 2016-Present.

**Course Lead**, HCIN-610 “Foundations of HCI,” Department of Information Sciences and Technology, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, 2015-Present.

**Member**, Language Science Faculty Group, faculty from across the Rochester Institute of Technology who meet to discuss curriculum matters and planning in the area of linguistics and language science, Fall 2014 to Present.

**Committee Member**, Research Seed Funding Review Committee, RIT Research Boot Camp Program, Sponsored Research Services, Office of the Vice President for Research, Rochester Institute of Technology, February 2016.

**Participant**, Professional networking practice event for students in the Autism Spectrum Support Program career course offered by the Office of Career Services & Cooperative Education, RIT, December 4, 2014, and December 11, 2015.

**Committee Member**, Research Seed Funding Review Committee, Deans Office, Golisano College of Computing and Information Sciences, Rochester Institute of Technology, Fall 2014.

## **Service Activities within College/University (2006 to 2014, City University of New York)**

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**Associate Dean**, Division of Mathematical and Natural Sciences (DMNS), Queens College, The City University of New York, June 2012 to August 2014.

*Division-wide budget planning, overseeing allocation of research enhancement funding and other faculty research support funds from the dean's office, community educational and high-school outreach activities, organizing major division-wide events (e.g., Undergraduate Science Research Day conference for several hundred students), assembling divisional information for public relations materials (e.g., new divisional viewbook), budgeting for equipment service contracts for core research facilities, coordinating course development for new general education curriculum at CUNY, and other projects as needed.*

**Member**, Curriculum Committee, Computer Science Department, Queens College, The City University of New York, September 2009 to August 2014.

**Co-Organizer**, CUNY-NLP Seminar Series (guest speaker series on natural language processing and computational linguistics), Graduate Center, The City University of New York, September 2009 to August 2014.

**Member**, Advisory Committee, MARC-U\*STAR Minority Access to Research Careers program, Queens College, The City University of New York, 2013 to August 2014.

**Computer Science Departmental Representative**, Undergraduate Research Council, Division of Mathematical and Natural Sciences, Queens College, The City University of New York, March 2008 to August 2014.

**Member**, Executive Committee, Linguistics Graduate Program, Graduate Center, The City University of New York, September 2011 to August 2013.

**Member**, Admissions and Awards Committee, Linguistics Graduate Program, Graduate Center, The City University of New York, September 2011 to August 2012.

**Member**, Macaulay College Council, Macaulay Honors College, The City University of New York, December 2010 to December 2012.

**Member**, Curriculum Committee (college-wide), Macaulay Honors College, The City University of New York, December 2010 to August 2012.

**Acting Director**, Masters Program and Doctoral Certificate Program in Computational Linguistics, Graduate Program in Linguistics, Graduate Center, The City University of New York, December 2010 to August 2012. (Course scheduling and staffing, curriculum planning, addressing student concerns and issues, updating website information, and admissions advertising campaign.)

**Assistant to the Dean**, Division of Mathematical and Natural Sciences (DMNS), Queens College, The City University of New York, November 2011 to June 2012. *Organizing calendar of divisional events, educational initiatives, institutional data reporting, coordinating creation of division brochure, and other projects.*

**Chair**, Search Committee for Visiting Faculty Position, Department of Computer Science, Queens College, The City University of New York, December 2011 to May 2012.

**Chair**, Academic/Internships Subcommittee, Queens College 75th Anniversary Year Celebration Planning Committee, December 2011 to May 2012.

**Member**, Ad Hoc Committee for Studying the Pathways General Education Program, Faculty Senate, Queens College, The City University of New York, September 2011 to December 2011.

**Member**, Research Enhancement Committee, Division of Mathematical and Natural Sciences, Queens College, The City University of New York, September 2011 to November 2011.

**Peer Mentoring**, Reading proposals, providing feedback, and meeting individually with Computer Science faculty members across CUNY who are reapplying for NSF CAREER Awards, May 2011 to July 2011.

**Member**, Search Committee, CUNY Cyber-Infrastructure Faculty Position, Queens College, 2009 to 2010.

**Member**, Committee to Enhance Scholarship and External Funding, Queens College, The City University of New York, January 2009.

**Organizer of the Computer Science Department’s website redesign/updating project**, Department of Computer Science, Queens College, The City University of New York, December 2007 to February 2008.

### **Invited Presentations and Guest Lectures (2006-Present)**

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- “Linguistic and Assistive Technologies for People with are Deaf and Hard of Hearing.” September 2017. Invited Speaker for the inaugural “Hot Topics” speaker series for the RIT-RISE Scientists in Training Program for Deaf and Hard-of-Hearing Undergraduates at the Rochester Institute of Technology.
- “Linguistic and Assistive Technologies for People with are Deaf and Hard of Hearing.” April 2017. Invited Keynote Speaker for GCCIS Research Showcase at the Rochester Institute of Technology.
- “Learning from Human Movements to Create Accurate Sign Language Animations.” March 2017. Invited Speaker for the inaugural “Move 78” seminar on artificial intelligence at Rochester Institute of Technology.
- “Accessibility in U.S. Computing Degrees.” November 2016. Invited Speaker as part of a panel on embedding accessibility in STEM education, White House Disability Inclusive Technology Summit, Organized by the American Association of People with Disabilities (AADP) and the White House, Washington, DC.
- “Ethical Inclusion of People with Disabilities through Undergraduate Computing Education” September 2016. Cultivating Cultures for Ethical STEM Principal Investigator Meeting, National Science Foundation, Washington, DC, USA, September 15-16, 2016.
- “Accessible Computing Research for Users who are Deaf and Hard of Hearing.” July 2016. University of Washington Computer Science and Engineering / Microsoft Research Summer Institute, Union, WA, USA.
- “Accessibility in Academia: What’s happening? How can we change?” April 2016. Invited Speaker, TeachAccess Kickstart Workshop, Yahoo! headquarters, Sunnyvale, CA.
- “Comparing Methods of Providing Feedback for Student Videos of American Sign Language.” November 2015. Invited Speaker, Language Science Research Mixer, Rochester Institute of Technology, Rochester, NY.
- “Learning to Generate Understandable Animations of American Sign Language.” September 2015. Invited Speaker, Seminar, Center for Imaging Science, Rochester Institute of Technology, Rochester, NY. <https://youtu.be/pcwXQ9WYKh8>
- “Learning to Generate Understandable Animations of American Sign Language.” May 2015. Invited Speaker, Seminar, Ph.D. Program in Computing and Information Sciences, Rochester Institute of Technology, Rochester, NY.
- “Learning to Generate Understandable Animations of American Sign Language.” April 2015. Invited Speaker, Seminar, Office of the Associate Dean for Research, National Technical Institute for the Deaf, Rochester Institute of Technology, Rochester, NY.
- “Conducting Experiments with People Who are Deaf to Evaluate ASL Technologies.” April 2015. Invited Speaker, Seminar, SIGCHI Chapter at RIT, Rochester, NY.
- “Learning to Generate Understandable Animations of American Sign Language.” December 2014. Invited Speaker, Seminar, Department of Computer Science, University of Rochester, Rochester, NY.
- “Learning to Generate Understandable Animations of American Sign Language.” November 2014. Guest Lecture, HIST-330: “Deafness and Technology,” Department of History, College of Liberal Arts, Rochester Institute of Technology (RIT), Rochester, NY.
- “Learning to Generate Understandable Animations of American Sign Language.” November 2014. Invited Speaker, Seminar, Center for Language and Speech Processing at Johns Hopkins University, Baltimore, MD.
- “Learning to Generate Understandable Animations of American Sign Language.” February 2014. Invited Speaker, School of Communication and Information Sciences, Rutgers University, New Brunswick, NJ.
- “Automatically Generating Understandable Animations of American Sign Language.” May 2013. Invited Speaker, Colloquium, Graduate Program in Linguistics, The Graduate Center, City University of New York.

- “Automatically Generating Understandable Animations of American Sign Language.” March 2013. Invited Speaker, Monthly Lecture Series, International Linguistics Association, New York, NY.
- “Automatically Generating Understandable Animations of American Sign Language.” July 2012. Invited Speaker, Summer Academy Colloquium, Department of Computer Science & Engineering, University of Washington, Seattle, WA.
- “Generating Linguistically Accurate and Understandable Sign Language Animations.” January 2012. Invited Speaker, Department of Linguistics, Montclair State University, Montclair, NJ, USA.
- “Design, Accessibility, Code: Three Perspectives on the Web. Part 2: Accessibility.” December 2011. Invited Speaker, “Tech Tuesday” Speaker Series, Center for Teaching and Learning, Queens College, The City University of New York, New York, NY, USA.
- “Learning to Produce Accurate and Understandable Sign Language Animations.” November 2011. Invited Speaker, Columbia Linguistics Society, Columbia University, New York, NY, USA.
- “Learning to Produce Accurate and Understandable Sign Language Animations.” October 2011. Invited Speaker, School of Computing, University of Dundee, Scotland, United Kingdom.
- “Cyclic Data-Driven Research on American Sign Language Animation.” January 2011. Invited Keynote Speaker, International Workshop on Sign Language Translation and Avatar Technology (SLTAT), Federal Ministry of Labor and Social Affairs, Berlin, Germany.
- “Linguistic and Assistive Technology for People with Disabilities.” February 2011. Guest Lecture, Computer Science 87100, “Research at CUNY,” Ph.D. Program in Computer Science, The Graduate School and University Center, The City University of New York, New York, NY, USA.
- “Experimental HCI Research with People with Disabilities: Case studies from the LATLab at CUNY.” November 2010. Guest Lecture, Library Sciences 754, “Human Computer Interaction,” Graduate School of Library and Information Sciences, Queens College, The City University of New York, NY, USA.
- “A Motion-Capture Corpus of American Sign Language for Generation Research.” December 2009. CUNY-NLP Seminar Series, NLP at CUNY: Computational Linguistic Research Community, Graduate Center, The City University of New York, New York, NY, USA.
- “Sign Language Animation: Making Information Accessible for People who are Deaf.” November 2009. Sigma Xi Scientific Research Society Faculty Research Presentation, Queens College, The City University of New York, Flushing, NY, USA.
- “Generating Animations of American Sign Language Based on Data from Native Signers.” June 2009. Invited Speaker, The Haskins Laboratories at Yale University, New Haven, CT, USA.
- “A Linguistic Timing Model for Animations of American Sign Language.” February 2009. Perceptual Science Speaker Series, Center for Cognitive Science (RuCCS) and IGERT: Interdisciplinary Training Program in Perceptual Science, Rutgers University, New Brunswick, NJ, USA.
- “A Linguistically Motivated Model for Speed and Pausing in Animations of American Sign Language.” September 2008. CUNY Psycholinguistics “Supper” Speaker Series, Graduate Program in Linguistics, The Graduate School and University Center, The City University of New York, New York, NY, USA.
- “ASL Generation” and “Evaluation of ASL Systems.” March 2008. Guest Lecture, Computer Science 84010, “Computational Linguistics,” Ph.D. Program in Computer Science and Graduate Program in Linguistics, The Graduate School and University Center, The City University of New York, NY, USA.
- “Linguistic and Assistive Technology for Users with Disabilities.” March 2008. Guest Lecture, Computer Science 87100, “Research at CUNY,” Ph.D. Program in Computer Science, The Graduate School and University Center, The City University of New York, New York, NY, USA.
- “Assistive Technology for the Deaf: American Sign Language Machine Translation.” November 2006. Guest Lecture, Computer Science 87100, “Research at CUNY,” Ph.D. Program in Computer Science, The Graduate School and University Center, The City University of New York, New York, NY, USA.

- “Assistive Technology for the Deaf: American Sign Language Machine Translation.” October 2006. Colloquium, Ph.D. Program in Computer Science, The Graduate School and University Center, The City University of New York, New York, NY, USA.
- “Representing American Sign Language Classifier Predicates Using Spatially Parameterized Planning Templates.” August 2006. Science of Learning Symposium on Generalization of Knowledge, The Institute of Cognitive Science, University of Colorado, Boulder, CO, USA.
- “Assistive Technology for the Deaf: American Sign Language Machine Translation.” April 2006. Seminar, Harvard-MIT Division of Health Sciences & Technology and the MIT Department of Electrical Engineering & Computer Science, Cambridge, MA, USA.
- “Assistive Technology for the Deaf: American Sign Language Machine Translation.” April 2006. Seminar, Center for Language and Speech Processing, Johns Hopkins University, Baltimore, MD, USA.

## Teaching Experience and Curriculum Design

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- MS Human Computer Interaction Capstone Proposal**, HCIN-794, Human Computer Interaction Program in the Information Sciences and Technologies Department, Golisano College of Computer and Information Sciences, Rochester Institute of Technology. Course created: Spring 2017. Course taught: Fall 2017. Students design a proposal for a capstone project to apply the theories and methodologies to a problem in the HCI domain. Students working through the guidance of the instructor, investigate a problem space, perform a literature review, develop the problem statement, write a proposal for how they intend to design and implement a solution, and communicate the proposal to potential capstone committee members.
- Research in Accessibility**, ISTE-462, Human-Centered Computing undergraduate program in the Information Sciences and Technologies Department, Golisano College of Computer and Information Sciences, Rochester Institute of Technology. Course designed: Spring 2017. Students dive into cutting edge research in the field of computer accessibility and assistive technology, by reading, presenting, and discussing research literature from major conferences and journals in the field. Students learn about recent developments and ongoing research efforts in accessibility – and how to synthesize the results from research publications in a literature review.
- Designing the User Experience**, ISTE-260, Information Technology undergraduate program in the Information Sciences and Technologies Department, Golisano College of Computer and Information Sciences, Rochester Institute of Technology. Course taught: Spring 2015, Spring 2016, Spring 2018. Students learn user-centered design principles and explore Human Computer Interaction (HCI) methods that span the development lifecycle from requirements analysis to creating the product vision through system prototyping and usability testing.
- Foundations of Human-Computer Interaction**, HCIN-610, Human Computer Interaction Program in the Information Sciences and Technologies Department, Golisano College of Computer and Information Sciences, Rochester Institute of Technology. Course taught: Fall 2014, Fall 2015, Fall 2016. Course re-designed for delivery via asynchronous video lectures in a seven-week online format: Spring 2017. Students are introduced to human-computer interaction design principles, key concepts in cognitive psychology, design and evaluation techniques, and accessible design for people with disabilities.
- Human-Computer Interaction and Accessibility**, CSci-381/780, Computer Science Department, CUNY Queens College. Course created and taught: Fall 2010. Students are introduced to human-computer interaction design principles, conduct of experimental studies involving human subjects, research methods and paradigms in human-computer interaction, and accessible design for people with disabilities.
- Honors Seminar: “A City for Everyone: Science and Technology in NYC Benefiting People with Disabilities”**, CUNY Queens College / Macaulay Honors College. Course created: Fall 2007. Taught: Fall 2007, Fall 2008, Fall 2009, Fall 2010, Fall 2011, and Fall 2012. Undergraduate Honors College students learn about the life experiences of people with disabilities, current trends in assistive technology, and introductory computing concepts. Readings and in-class discussion explore the legal, medical, social, educational, cultural, and ethical issues surrounding technology and people with disabilities.
- Language Technology: Speech and Language Processing**, cross-listed between the Graduate Program in Linguistics and the Doctoral Program in Computer Science, CUNY Graduate Center. Course materials created: Spring 2009. Course taught: Spring 2009, Spring 2010, Spring 2011, Spring 2012. PhD students in Linguistics

and in Computer Science are introduced to computational linguistics concepts, speech and language processing technologies, and research areas in the field of Natural Language Processing.

**Methods in Computational Linguistics I**, Graduate Program in Linguistics, CUNY Graduate Center. Course materials created: Fall 2011. Course taught: Fall 2011, Fall 2013. MA and PhD students in Linguistics are introduced to the Python programming language and key programming techniques used in computational linguistics research.

**User-Interface Design and Accessibility**, CSC-87100, Computer Science Ph.D. Program, CUNY Graduate Center. Course created and taught: Fall 2007. PhD students in Computer Science are introduced to human-computer interaction and assistive technology for people with disabilities, applications of computer research to problems in accessibility, and experimental research with human subjects.

**Artificial Intelligence**, CSci-363, CUNY Queens College. Course materials created and taught: Spring 2007. In this upper-level elective course, senior undergraduate students and masters students in computer science were exposed to foundational concepts and techniques in the field of artificial intelligence.

**Data Structures**, CSci-313, CUNY Queens College. Course materials created: Fall 2006. Taught: Fall 2006, Spring 2007, Fall 2007, Spring 2008, Fall 2008. Undergraduate students with a major or minor in computer science take this course as part of the core curriculum; it is a prerequisite for most upper-level courses.

**Dissertation Research Advisement**, Computer Science Ph.D. Program, CUNY Graduate Center. Advising dissertation research projects for Computer Science Ph.D. students. Spring 2008-Present.

**Introduction to Scientific Honors Research**, Honors in the Natural and Mathematical Sciences, HMNS-102, CUNY Queens College. Directed undergraduate honors student research projects for course credit: Fall 2010.

**Independent Study**, Computer Science Department, CUNY Queens College. Directed student research projects for course credit: Fall 2008, Spring 2010.

**Introduction to Artificial Intelligence**, CSE-391, Department of Computer Science, University of Pennsylvania, Created and taught one-third of course lectures: Spring 2004, Spring 2005.

**Information Technology and Its Impact on Society**, CSE-100, Department of Computer Science, University of Pennsylvania, Created and taught recitation/laboratory section of the course: Fall 2003. Non-science students learn computing and Internet technology concepts, and they explore issues in electronic privacy and security, intellectual property, societal changes relating to information technology, and other ethical issues in cyberspace.

## **Ph.D. Student Advisees**

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Matthew Seita, Ph.D. advisor, Computing & Information Sciences, RIT. Fall 2017 to Present.

Sedeeq Alkhazraji, Ph.D. advisor, Computing & Information Sciences, RIT. Fall 2016 to Present.

Khaled Albusays, Ph.D. advisor, Computing & Information Sciences, RIT. Fall 2016 to Present.

Larwan Berke, Ph.D. advisor, Computing & Information Sciences, RIT. Fall 2015 to Present.

Sushant Kafle, Ph.D. advisor, Computing & Information Sciences, RIT. Fall 2015 to Present.

Hernisa Kacorri, Ph.D. advisor, The Graduate Center, CUNY. Defended and graduated: February 2016.

- After graduation: Post-Doctoral Research Fellow at Carnegie Mellon University.
- Since Fall 2017: Tenure-Track Assistant Professor, University of Maryland, in College Park, Maryland.

Allen Harper, Ph.D. advisor, The Graduate Center, CUNY. Defended and graduated: June 2015.

- After graduation: Visiting Assistant Professor at Bowdoin College in Brunswick, Maine.

Josh Waxman, Ph.D. advisor, The Graduate Center, CUNY. Defended and graduated: June 2014.

- Since Fall 2016: Tenure-track Assistant Professor at Yeshiva University in New York, New York.

Pengfei Lu, Ph.D. advisor, The Graduate Center, CUNY. Defended and graduated: October 2013.

- After graduation: Researcher at Intel in San Jose, California.

Lijun Feng, Ph.D. advisor, The Graduate Center, CUNY. Defended and graduated: September 2010.

- After graduation: Researcher at Standard and Poor's in New York, New York.

### **Ph.D. Thesis and Exam Committees (does not include Ph.D. student advisees listed above)**

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Robbie Jimerson, Ph.D. research potential assessment (qualifier) committee, RIT. Defended: May 2016.  
Paula Garcia, Ph.D. research potential assessment (qualifier) committee, RIT. Defended: May 2016.  
Noella Kolash, Ph.D. research potential assessment (qualifier) committee, RIT. Defended: May 2016.  
Alan J. Lambie, Ph.D. research potential assessment (qualifier) committee, RIT. Defended: May 2016.  
AbdulRhman Alkhanifer, Ph.D. thesis committee, RIT. Defended and graduated: September 2015.  
Sumon Azhar, Ph.D. thesis committee, The Graduate Center, CUNY. Defended and graduated: August 2015.  
Taylor Cassidy, Ph.D. thesis committee, The Graduate Center, CUNY. Defended and graduated: April 2014.  
Edgar Troudt, Ph.D. thesis committee, The Graduate Center, CUNY. Defended and graduated: December 2013.  
Rachel Adler, Ph.D. thesis committee, The Graduate Center, CUNY. Defended and graduated: January 2012.  
Kyle Duarte, Ph.D. thesis committee, University of South Brittany, France. Defended and graduated: June 2012.  
Tiziana Ligorio, Ph.D. thesis committee, The Graduate Center, CUNY. Defended and graduated: June 2011.  
Qi Li, Ph.D. qualifying exam committee, The Graduate Center, CUNY. Exam: June 2012.  
David Guy Brizan, Ph.D. qualifying exam committee, The Graduate Center, CUNY. Exam: August 2011.  
Zheng Chen, Ph.D. qualifying exam committee, The Graduate Center, CUNY. Exam: February 2009.

### **Visiting Ph.D. Student Research Advisees**

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Sarah Ebling, Computational Linguistics Ph.D. Student, University of Zurich, visited March 2015 to August 2015.

### **Research Staff Advisees**

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Jonathan Lamberton, Research Assistant, Research Foundation of CUNY. 2008 to 2014.  
Miriam Morrow, Research Assistant, Research Foundation of CUNY. 2013 to 2014.

### **Masters Project or Thesis Advisees**

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Spandana Jaddumantri, Human Computer Interaction M.S. student, RIT. 2017 to Present. Proposal accepted.  
Abhishek Kannekanti, Human Computer Interaction M.S. student, RIT. 2017 to Present. Proposal accepted.  
Mackenzie T. Willard, Information Sciences & Technologies M.S. student, RIT. 2014 to Present. Proposal accepted.  
Erroyl Rolle, Information Sciences & Technologies M.S. student, RIT. 2014 to Present. Proposal accepted.  
Abhishek Mhatre, Human Computer Interaction M.S. student, RIT. 2015 to Present. Proposal accepted.  
Utsav Shah, Human Computer Interaction M.S. student, RIT. 2015 to Present. Proposal accepted.  
Kasmira Patel, Human Computer Interaction M.S. student, RIT. 2014 to 2017. Defended: June 2017.  
Jigar Gohel, Information Sciences & Technologies M.S. student, RIT. 2015 to 2016. Defended: December 2016.  
Goudam Muralitharan, Human Computer Interaction M.S. student, RIT. 2014 to 2016. Defended: September 2016.  
Dhananjai Hariharan, Human Computer Interaction M.S. student, RIT. 2014 to 2016. Defended: May 2016.  
Brian Penly, Human Computer Interaction M.S. student, RIT. 2014 to 2016. Defended: May 2016.  
Jackson Yeh, Computer Science M.S. student, Queens College, CUNY. Graduated: 2010.

### **Masters Student Research Advisees (students developing project/thesis proposals)**

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Taylor Gotfrid, Human Computer Interaction M.S. student, RIT. 2017 to Present.  
Peter Yeung, Human Computer Interaction M.S. student, RIT. 2017 to Present.  
Sheshagiri Anupama Garani, Information Sciences and Technologies M.S. student, RIT. 2017 to Present.  
Tomomi Takeuchi, Human Computer Interaction M.S. student, RIT. 2016 to Present.

Nidhi Palan, Human Computer Interaction M.S. student, RIT. 2014 to Present.  
Aditya Padhye, Information Sciences & Technologies M.S. student, RIT. 2016 to Present.  
Harshad Golwalkar, Human Computer Interaction M.S. student, RIT. 2015 to Present.  
Sree Pillutla, Human Computer Interaction M.S. student, RIT. 2015 to Present.  
Aditya Padhye, Information Sciences and Technologies M.S. student, RIT. 2016 to 2017.

### **Masters Student Thesis/Project Committees (does not include Masters student advisees above)**

Ameilia Keller, Human Computer Interaction M.S. student, RIT. Thesis committee. Proposal accepted.  
Sangram Pawar, Human Computer Interaction M.S. student, RIT. Capstone project committee. Proposal accepted.  
Tangmay Songade, Human Computer Interaction M.S. student, RIT. Capstone project committee. Proposal accepted.  
Andrew Fagan, Human Computer Interaction M.S. student, RIT. Capstone project committee. Defended: Dec 2016.  
Ashley Miller, Human Computer Interaction M.S. student, RIT. Capstone project committee. Defended: Dec 2016.  
Alessandra Brindao, Human Computer Interaction M.S. student, RIT. Thesis committee. Defended: May 2016.

### **Undergraduate Student Research Advisees (including summer NSF REU students and co-ops)**

Jason Antal, Information Technology and Government, B.S. student, Gallaudet University. Summer 2017.  
Ben Kassman, Math and Computer Science, B.S. student, Lewis and Clark College. Summer 2017.  
Jaron Rehkop, Information Technology, B.S. student, Gallaudet University. Summer 2017.  
Catherine Seita, undergraduate student, Cornell University. Summer 2017.  
Erin Ireland, ASL English Interpretation, B.A. student, RIT. 2017 to Present.  
Jeremy Sheffield, ASL English Interpretation, B.A. student, RIT. 2017 to Present.  
Afifi Ishak, Undergraduate student, RIT. 2016 to Present.  
Anmol Kaur, Laboratory Science Technology, undergraduate student, RIT. 2016 to Present.  
Aiko Resendiz, ASL English Interpretation, B.A. student, RIT. 2016 to Present.  
Jason Durek, Computer Science B.S. student, RIT. 2015 to 2017.  
Christopher Caulfield, Information Technology B.S. student, RIT. 2015 to 2017.  
Paul Bayruns, Mathematics, B.S. student, Rowan University. Summer 2016.  
Kevin Rathbun, Computer Engineering, B.S. student, University at Buffalo. Summer 2016.  
Abigail Spring, Information Technology, B.S. student, RIT. Summer 2016.  
Daniel Saavedra, Information Technology, B.S. student, RIT. Summer 2016.  
Christine Singh, Electrical Engineering, B.S. student, RIT. Summer 2016.  
Kellie Menzies, Anthropology and Museum Studies, B.A. student, RIT. 2015 to 2016.  
Adrienne Howad, ASL English Interpretation, B.A. student, RIT. 2016.  
Caleb Van Der Werf, Game Design and Development B.S. student, RIT. 2015 to 2016.  
Evans Seraphin, Information Technology B.S. student, RIT. Spring 2015.  
Priscilla Diaz, CUNY Queens College, Spring 2014.  
Molly Sachs, Gallaudet University. 2012 to 2014.  
Fang Zhou Yang, Gallaudet University, Summer 2013.  
Jennifer Marfino, Rochester Institute of Technology, Summer 2013.  
Wesley Clarke, Rochester Institute of Technology, 2011 to 2012.  
Meredith Turteltaub, University of Pennsylvania, 2010 to 2011.  
Rea Bhasin, CUNY Queens College, Fall 2010.  
Amanda Krieger, Gallaudet University, Summer 2009.



## High School Student Research Advisees (summer research students)

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Kaushik Pillapakkam, Lexington School for the Deaf, Summer 2013.  
Christine Singh, Forest Hills High School, 2012 to 2013.  
Evans Seraphin, Lexington School for the Deaf, 2012 to 2013.  
Fatimah Mohammed, Murray Bergtraum High School, Summer 2012.  
Giovanni Moriarty, P.S. 47 ASL and English Secondary School, 2011 to 2012.  
Kenya Bryant, Murray Bergtraum High School, Summer 2011.  
Raymond Ramirez, Blind Brook High School, Summer 2011.  
Jaime Penzellna, Lexington School for the Deaf, Summer 2010.  
Wesley Clarke, Lexington School for the Deaf, 2009 to 2010.  
Kelsey Gallagher, Oyster Bay High School, Summer 2009.  
Aaron Pagan, Middle College High School, Summer 2009.

## Media Outreach

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Featured in the cover story of *The Hearing Journal* in September 2017, in an article entitled “Virtual Reality: The Next Frontier of Audiology.” [http://journals.lww.com/thehearingjournal/Fulltext/2017/09000/Virtual\\_Reality\\_\\_The\\_Next\\_Frontier\\_of\\_Audiology.1.aspx](http://journals.lww.com/thehearingjournal/Fulltext/2017/09000/Virtual_Reality__The_Next_Frontier_of_Audiology.1.aspx)

Featured in *PC Magazine* on May 9, 2017, in an article entitled “Augmented Ability: Assistive Tech Gets Smart.” <http://www.pcmag.com/article/353544/augmented-ability-assistive-tech-gets-smart>

Featured in *Slate* on May 17, 2017, in an article entitled “How Movie Magic Could Help Translate for Deaf Students.” [http://www.slate.com/articles/technology/future\\_tense/2017/05/computer\\_avatars\\_can\\_translate\\_written\\_spoken\\_words\\_into\\_sign\\_language.html](http://www.slate.com/articles/technology/future_tense/2017/05/computer_avatars_can_translate_written_spoken_words_into_sign_language.html)

- Cross-published in *The Hechniger Report* on May 17, 2017: <http://hechnigerreport.org/movie-magic-used-translate-deaf/>
- Article featured in the June 2017 *SIGCHI* edition of the *ACM TechNews*. <http://sigchi-technews.acm.org/archives.cfm?fo=2017-06-jun/jun-02-2017.html>
- Article featured in the May 17, 2017, edition of *RIT News and Events Daily*

Featured in *RIT University News*, in the April 6, 2017 issue, in an article entitled “Researchers honored by Rochester Institute of Technology: Reception celebrates funding awards and induction of 11 new ‘PI Millionaires.’” <https://www.rit.edu/news/story.php?id=60786>

Featured in *RIT News and Events Daily*, in the December 9, 2016 issue, in regard to presenting on “Accessibility in U.S. Computing Degrees” at the White House. <https://www.rit.edu/gccis/news/rit-professor-presents-white-house-disability-and-inclusive-technology-summit>

Featured in *RIT Athenaeum: News and Insight from Rochester Institute of Technology*, in the December 2016 to January 2017 issue, Volume 8, Number 3, in article entitled “Researchers work to make technology more accessible to all.” <https://www.rit.edu/news/story.php?id=58765>

Featured in video montage in RIT Presidential Spotlight with Dr. Bill Destler, March 7, 2016 edition, in which the President discussed research accomplishments at RIT, <https://youtu.be/02e8MvPQXDU?t=1m35s>

Featured in video montage in *RIT Presidential Spotlight with Dr. Bill Destler*, November 9, 2015 edition, in which the President discussed academic success and research at RIT, <https://youtu.be/u0jKdrQmhSE?t=53s>

Featured in *RIT News and Events Daily*, in the July 2, 2015 issue, in regard to election as vice-chair of the Association of Computing Machinery’s Special Interest Group on Accessible Computing (SIGACCESS).

Featured in *RIT Athenaeum: News and Insight from Rochester Institute of Technology*, in the February-March 2015 issue, Volume 6, Number 4, in article entitled “Animation helps Web-based sign language come alive.”

Featured in *Research at RIT*, the research report of the Rochester Institute of Technology, in the Fall/Winter 2014-5 issue, in article entitled “Future of Research.”

Featured in online article from the George Mitchell Scholarship program of the US-Ireland Alliance on July 5, 2013, in article entitled “Matt Huenerfauth -- Film Animation and American Sign Language.”

Featured in *Salute to Scholars* newsletter publication from City University of New York in Spring 2012 in an article entitled “Signposts that Digitally Aid the Deaf.”

Featured in *Kids These Days* radio program on KSKA on August 3, 2011, in segment entitled “Assistive Technology Helping Deaf Students Succeed.”

Featured in the Irish Echo newspaper (national publication aimed at the Irish-American community) on February 23, 2011, as one of the “Top 40 Under 40” young professionals in the United States, with an article about career in computer accessibility and higher education.

Quoted on radio program on WNYC-FM on August 19, 2010, entitled “Signs of Change: Video Chatting Software to Help the Hearing-Impaired.”

### **Early Professional History (prior to receipt of Ph.D. in 2006)**

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<b>Teaching Assistant.</b> Computer and Information Science Dept., U. Pennsylvania.	Fall 2003 to Spring 2005
<b>Program Manager Intern.</b> Microsoft Corporation, Natural Language Group.	Summer 2000, Summer 2001
<b>Research Assistant.</b> Computer and Information Science Department, University of Delaware.	1998 to 2001
<b>Teaching Assistant.</b> Computer and Information Science Department, University of Delaware.	Fall 1999
<b>Teaching Assistant.</b> Pennsylvania Governor's School of Excellence for the Sciences.	Summer 1999

### **Professional Memberships**

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Association for Computing Machinery (ACM)

*Special Interest Groups: Accessible Computing (SIGACCESS), Computer Science Education (SIGCSE), Information Technology Education (SIGITE), Computers and Society (SIGCAS)*

Association for Computational Linguistics (ACL)

*Special Interest Group on Speech and Language Processing for Assistive Technologies (SLPAT)*