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Human-Computer Interaction; Accessibility; Natural Language Processing; Crowdsourcing; Machine Learning

**ACADEMIC POSITION**

**University of Maryland – College Park** 2017  
Assistant Professor (tenure-track), College of Information Studies

**EDUCATION**

**Doctor of Philosophy**, Computer Science, *City University of New York* 2016

**Master of Philosophy**, Computer Science, *City University of New York* 2014

*Thesis*: Data-driven synthesis and evaluation of syntactic facial expressions in ASL animation.

*Advisor*: Matt Huenerfauth

**Master of Science**, Advanced Computer Systems, *National and Kapodistrian University of Athens* 2011

*Thesis*: 8-dot Braille code for Greek monotonic and polytonic writing systems.

**Bachelor of Science**, Computer Science (Rank: 4<sup>th</sup> of 52), *National and Kapodistrian University of Athens* 2007

*Thesis*: MathPlayer – Audio Rendering of Mathematical MathML Expressions in Greek.

**HONORS & AWARDS**

CHI 2017 Best Paper Honorable Mention 2017

ASSETS 2016 Best Paper Finalist 2016

CMU's Rising Stars in EECS – A selective career workshop for future academic women in EECS 2016

Mina Rees Dissertation Fellowship in the Sciences 2015

Insight Data Science Scholarship (declined) 2015

CUNY Doctoral Student Research Grants (2 awards) 2013 – 2015

CUNY Conference Presentation Awards (3 awards) 2013 – 2015

Python Software Foundation Financial Aid Award 2013

ACM ASSETS Doctoral Consortium 2012

CUNY Science Fellowship 2011 – 2012

**PROFESSIONAL EXPERIENCE**

**Carnegie Mellon University**. Postdoctoral Fellow 2016 – 2017

Cognitive Assistance Lab, Human-Computer Interaction Institute, School of Computer Science

*Hosts*: Chieko Asakawa, Kris Kitani, and Jeffrey Bigham

**City University of New York & Rochester Institute of Technology**. Research Assistant 2011 – 2016

Linguistic and Assistive Technologies Lab. Generating accurate, understandable sign language animations based on analysis of human signing. NSF #1065009.

*Advisor*: Matt Huenerfauth

**Lawrence Berkeley National Laboratory**. Research Intern 2015

Usable Software Systems Group, Data Science and Technology Department

*Host*: Lavanya Ramakrishnan

**IBM Research – Tokyo**. Research Intern 2013

*Hosts*: Hironobu Takagi and Chieko Asakawa

**University of Athens** (>65,000 students). Assistive Technologies Specialist 2010 – 2011

Accessibility Unit for Students with Disabilities

Campus-wide accessibility evaluations and effective use of assistive technologies.

Speech and Accessibility Lab. Increase of access on e-government services for people with disabilities and production of accessible science books.

Advisor: Georgios Kouroupetroglou

## PEER-REVIEWED JOURNAL ARTICLES

- J.4 **Kacorri, H.**, Huenerfauth, M., Ebling, S., Patel, K., Menzies, K., and Willard, M. 2017. Regression Analysis of Demographic and Technology Experience Factors Influencing Acceptance of Sign Language Animation. *ACM Transactions on Accessible Computing (TACCESS)*. Volume 10, Issue 1, Article 3.
- J.3 Huenerfauth, M. and **Kacorri, H.** 2016. Eyetracking Metrics Related to Subjective Assessments of ASL Animations. *Journal on Technology & Persons with Disabilities*, Volume 4.
- J.2 Huenerfauth, M. and **Kacorri, H.** 2015. Best Practices for Conducting Evaluations of Sign Language Animation. *Journal on Technology & Persons with Disabilities*, Volume 3.
- J.1 **Kacorri, H.**, Lu, P., and Huenerfauth, M. 2013. Effect of Displaying Human Videos During an Evaluation Study of American Sign Language Animation. *ACM Transactions on Accessible Computing (TACCESS)*. Volume 5, Issue 2, Article 4.

## PEER-REVIEWED PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS

- P.13 **Kacorri, H.**, Kitani, K., Bigham, J.P., and Asakawa, C. 2017. People with Visual Impairment Training Personal Object Recognizers: Feasibility and Challenges. To appear in *Proc. of the 35th Annual SIGCHI Conference on Human Factors in Computing Systems (CHI 2017)*. Denver, Colorado, USA. ACM Press.  
Acceptance rate: 25% **Best Paper Honorable Mention**
- P.12 **Kacorri, H.**, Mascetti, S., Gerino, A., Ahmetovic, D., Takagi, H., and Asakawa, C. 2016. Supporting Orientation of People with Visual Impairment: Analysis of Large Scale Usage Data. In *Proc. of the 18th ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2016)*. Reno, NV, USA. ACM Press.  
Acceptance rate: 25% **Best Paper Finalist**
- P.11 **Kacorri, H.** and Huenerfauth, M. 2016. Continuous Profile Models in ASL Syntactic Facial Expression Synthesis. In *Proc. of the 54<sup>th</sup> Annual Meeting on Association for Computational Linguistics (ACL 2016)*. Association for Computational Linguistics, Stroudsburg, PA, USA.  
Acceptance rate: 25.4%
- P.10 **Kacorri, H.**, Huenerfauth, M., Ebling, S., Patel, K., Willard, M. 2015. Demographic and Experiential Factors Influencing Acceptance of Sign Language Animation by Deaf Users. In *Proc. of the 17th ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2015)*. Lisbon, Portugal. ACM Press.  
Acceptance rate: 23%
- P.9 **Kacorri, H.**, Shinkawa, K., and Saito, S. 2015. CapCap: An Output-Agreement Game for Video Captioning. In *16<sup>th</sup> Annual Conference of the Int'l Speech Communication Association (INTERSPEECH 2015)*, Dresden, Germany.  
Acceptance rate: 51%
- P.8 **Kacorri, H.** and Huenerfauth, M. 2014. Implementation and Evaluation of Animation Controls Sufficient for Conveying ASL Facial Expressions. In *Proc. of the 16th ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2014)*. Rochester, NY, USA. ACM Press.
- P.7 **Kacorri, H.**, Shinkawa, K., and Saito, S. 2014. Introducing Game Elements in Crowdsourced Video Captioning by Non-Experts. In *Proc. of the 11th Web for All Conference (W4A 2014)*. ACM.

- P.6 **Kacorri, H.**, Riga, P., and Kouroupetroglou, G. 2014. Performance Metrics and Their Extraction Methods for Audio Rendered Mathematics. In *Int'l Conference on Computers Helping People with Special Needs (ICCHP 2014)*, pp. 614-621. Springer International Publishing.  
Acceptance rate: 36%
- P.5 **Kacorri, H.**, Harper, A., and Huenerfauth, M. 2013. Comparing Native Signers Perception of American Sign Language Animations and Videos via Eye Tracking. In *Proc. of the 15th ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2013)*, Bellevue, WA, USA. ACM Press.  
Acceptance rate: 29%
- P.4 Lu, P. and **Kacorri, H.** 2012. Effect of Presenting Video as a Baseline During an American Sign Language Animation User Study. In *Proc. of the 14th ACM SIGACCESS Conference on Computers and Accessibility (ASSETS 2012)*, Boulder, CO, USA. ACM Press.  
Acceptance rate: 28%
- P.3 Kouroupetroglou, G., Pino, A., and **Kacorri, H.** 2011. A Model of Accessibility Services Provision for Students with Disabilities in Higher Education, In *Proc. of the Int'l Conference Universal Learning Design (ULD 2011)*, Brno, Czech Republic.
- P.2 Pino, A., Kouroupetroglou, G., **Kacorri, H.**, Sarantidou, A., and Spiliotopoulos, D. 2010. An Open Source/Freeware Assistive Technology Software Inventory. In *Int'l Conference on Computers Helping People with Special Needs (ICCHP 2010)*, pp. 178-185. Springer Berlin Heidelberg.  
Acceptance rate: 44.8%
- P.1 Kouroupetroglou, G., and **Kacorri, H.** 2010. Deriving Accessible Science Books for the Blind Students of Physics, In *Proc. of the 7th Int'l Conference of the Balkan Physical Union*, Published by the American Institute of Physics (AIP), Vol. 1203(1), pp. 1308-1313.

#### PEER-REVIEWED PAPERS PUBLISHED IN WORKSHOP PROCEEDINGS

- W.5 **Kacorri, H.**, Huenerfauth, M. 2016. Selecting Exemplar Recordings of American Sign Language Non-Manual Expressions for Animation Synthesis Based on Manual Sign Timing. In *Proc. of the 7th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), INTERSPEECH 2016*, San Francisco, CA, USA.
- W.4 **Kacorri, H.**, Syed, A.R., Huenerfauth, M., Neidle, C. 2016. Centroid-Based Exemplar Selection of ASL Non-Manual Expressions using Multidimensional Dynamic Time Warping and MPEG4 Features. In *Proc. of the 7th Workshop on the Representation and Processing of Sign Languages: Corpus Mining, The 10th Int'l Conference on Language Resources and Evaluation (LREC 2016)*, Portoroz, Slovenia.
- W.3 **Kacorri, H.**, Huenerfauth, M. 2015. Evaluating a Dynamic Time Warping Based Scoring Algorithm for Facial Expressions in ASL Animations. In *Proc. of the 6th Workshop on Speech and Language Processing for Assistive Technologies (SLPAT), INTERSPEECH 2015*, Dresden, Germany.
- W.2 Huenerfauth, M. and **Kacorri, H.** 2015. Augmenting EMBR Virtual Human Animation System with MPEG-4 Controls for Producing ASL Facial Expressions. In *5th International Workshop on Sign Language Translation and Avatar Technology (SLTAT 2015)*, Paris, France, April 9-10, 2015.
- W.1 Huenerfauth, M. and **Kacorri, H.** 2014. Release of Experimental Stimuli and Questions for Evaluating Facial Expressions in Animations of American Sign Language. In *Proc. of the 6th Workshop on the Representation and Processing of Sign Languages: Beyond the Manual Channel, The 9th Int'l Conference on Language Resources and Evaluation (LREC 2014)*, Reykjavik, Iceland.

## PEER-REVIEWED PAPERS PUBLISHED AS BOOK CHAPTERS

- C.6 **Kacorri, H.** and Huenerfauth, M. 2015. Comparison of Finite-Repertoire and Data-Driven Facial Expressions for Sign Language Avatars. *Universal Access in Human-Computer Interaction. Lecture Notes in Computer Science*. Springer International Publishing.
- C.5 **Kacorri, H.**, Harper, A., Huenerfauth, M. 2014. Measuring the Perception of Facial Expressions in American Sign Language Animations with Eye Tracking. *Universal Access in Human-Computer Interaction (UAHCI 2014). Lecture Notes in Computer Science*. Volume 8516, pp. 549-559. Springer International Publishing.
- C.4 **Kacorri, H.**, Riga, P., and Kouroupetroglou, G. 2014. EAR-Math: Evaluation of Audio Rendered Mathematics. *Universal Access in Human-Computer Interaction (UAHCI 2014), Universal Access to Information and Knowledge*, pp. 111-120. Springer International Publishing.
- C.3 **Kacorri, H.**, Lu, P., and Huenerfauth, M. 2013. Evaluating Facial Expressions in American Sign Language Animations for Accessible Online Information. *Universal Access in Human-Computer Interaction (UAHCI 2013). Design Methods, Tools, and Interaction Techniques for eInclusion, Lecture Notes in Computer Science*, pp. 510-519. Springer Berlin Heidelberg.
- C.2 **Kacorri, H.** and Kouroupetroglou, G. 2013. Design and Developing Methodology for 8-dot Braille Code Systems. In *Universal Access in Human-Computer Interaction (UAHCI 2013). Applications and Services for Quality of Life*, pp. 331-340. Springer Berlin Heidelberg.
- C.1 Tsonos, D., **Kacorri, H.**, and Kouroupetroglou, G. 2009. A Design-for-All Approach Towards Multimodal Accessibility of Mathematics, In *P.L. Emiliani et al. (Eds.) Assistive Technology from Adapted Equipment to Inclusive Environments, Assistive Technology Research Series*, Vol. 25, pp. 393-397, IOS Press.

## THESES / OTHER PUBLICATIONS

- T.3 **Kacorri, H.** 2016. Data-Driven Synthesis and Evaluation of Syntactic Facial Expressions in American Sign Language Animation. *Doctoral Dissertation*, Computer Science, Graduate Center, City University of New York.
- T.2 **Kacorri, H.** 2011. A study of Greek 8-dot Braille Code, *Master's Thesis* (in Greek). Department of Informatics and Telecommunications, University of Athens. (available in Greek)
- T.1 **Kacorri, H.** 2006. Audio Rendering of Mathematical MathML Expressions in Greek. *Bachelor's Thesis*. Department of Informatics and Telecommunications, University of Athens. (available in Greek)
- O.2 **Kacorri, H.** 2015. TR-2015001: A Survey and Critique of Facial Expression Synthesis in Sign Language Animation. *Computer Science Technical Reports*, Paper 403. Graduate Center, CUNY.
- O.1 **Kacorri, H.** 2013. Models of Linguistic Facial Expressions for American Sign Language Animation. *ACM SIGACCESS Accessibility and Computing*, (105), 19-23.

## PATENTS

- I.1 Shinkawa, K., Saito, S., and Sato, D., **Kacorri, H.** July 9, 2015. A Method for Efficient Generation of Video Captioning from Multiple Inputs. *Japan Patent P2015-127894A*.

## GRANTS

- G.2 Kitani, K. (PI), Veloso, M. (co-PI), Ahmetovic, D. (SP), **Kacorri, H.** (SP), and Asakawa, C. (SP). September 2016 to August 2019. NRI: A Cognitive Navigation Assistant for the Blind. *National Science Foundation, CISE Directorate, IIS Division*. Senior personnel, contributed to grant development and writing. Amount: \$1,000,000.

G.1 **Kacorri, H.** September 2015 to May 2016. Data-driven Models and Evaluation of Syntactic Facial Expressions for ASL Animation. *Mina Rees Dissertation Fellowship in the Sciences*, Doctoral Dissertation Fellowships and Grants. Graduate Center, City University of New York.  
Grant Awardee. Amount: \$24,260.

## TEACHING EXPERIENCE

- Instructor for 42-hour **University Course**: "Creating Accessible Educational Materials", *Special Education Programs with Emphasis on Physical Activity and Inclusion, Specialization Programs*, University of Macedonia. Spring 2010.
- Instructor for 160-hour **Vocational Training Programs** (2) for Blind Secondary-School Graduates: "Computer Technologies", *School for the Disabled, Ministry of Employment and Social Protection*, Athens, Greece. Fall 2009 – Spring 2010. A highly competitive position requiring over 100 hours of educational experience with blind people.
- Instructor for Two-Day **Web Accessibility Workshop** for CS Professionals "The Challenge of Accessibility in Cypriot Mass Media: WWW Accessibility", *TrueRespect, CYTA*, Nicosia, Cyprus. September 2010.
- Instructor for One-Day **Training Workshops**: "Free Assistive Technologies" and "Audio Access to Math: Let's Do It" in *The 16th Int'l Camp on Communication & Computers for All Blind and Visually Impaired Youngsters*, Athens, Greece. Summer 2010.
- Instructor for Multi-Day **Training Workshop** for Government Employees: "Digital Center's products and assistive technology services", *Institute for Social Protection and Solidarity*, Greece. July 2008.
- Instructor for 40-hour **Training Course** for Volunteers: "Transformation of books in accessible formats for students with visual impairment", *TIM Hellas Inc.*, Athens, Greece. Fall 2006.
- Instructor for Multi-Day **Seminar**: "Information Technology to Support People with Disabilities in Libraries", *University of Athens*, Greece. April 2006. Funded by: Ministry of Education.

## MENTORING EXPERIENCE

**Summer Internships** (2012 – 2013) Linguistic and Assistive Technologies Laboratory, Queens College, CUNY

- Wesley Clarke, Jennifer Marfino, and Fang Zhou Yang – Undergraduate Student Researchers\*.
- Fatimah Mohammed, Giovanni Moriarty, Christine Singh, Evans Seraphin – High School Students.

**Master Theses** (2009 – 2011) University of Athens

- Konstantina Stasinou, Thomas Papaspyrou, and Anna Sarantidou – Informatics and Telecommunications.
- Aristotelis Skiadas, Spyridoula Emmanouil – Electronic Automation.

**Bachelor Thesis** (Spring 2011) Technological Educational Institute of Piraeus

- Evagelia Panagiotopoylou – Electronic Computer Systems.

## PROFESSIONAL SERVICE

*Program Committee*

ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)	2017
International Cross-Disciplinary Conference on Web Accessibility (W4A)	2017
ACM SIGACCESS Conference on Computers and Accessibility (ASSETS)	2016
ACL/ISCA Workshop on Speech and Language Processing for Assistive Technologies (SLPAT, Satellite workshop of INTERSPEECH)	2016
ELRA Workshop on the Representation and Processing of Sign Languages (at LREC)	2016

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Recipients of the NSF Undergraduate Research Experience Award

### Reviewer

IFIP TC.13 International Conference on Human-Computer Interaction (INTERACT)	2017
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)	2016
ACM Joint Conference on Pervasive and Ubiquitous Computing (UbiComp)	2016
Research on Biomedical Engineering	2016
Universal Access in the Information Society	2016
Mobile Information Systems	2016
ACM SIGCHI Conference on Human Factors in Computing Systems (CHI)	2015
Computer Vision and Image Understanding (CVIU)	2015
ELRA Workshop on the Representation and Processing of Sign Languages (at LREC)	2015
Workshop on Sign Language Translation and Avatar Technology (SLTAT)	2015

### Panel of Judges

ACM Student Research Competition (ASSETS 2016)	2016
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### Conference Secretariat/Web

Workshop on Gesture in Embodied Communication and Human-Computer Interaction (GW)	2011
IAPR Workshop on Cognitive Information Processing (CIP)	2008
AFIM/AIMI/DEGEM/HACI Sound and Music Computing Conference (SMC)	2007

### Other Service

CUNY-NLP Seminar Student Chair: Responsible for logistics and hosting visiting speakers for this biweekly seminar series on computational linguistics, Spring and Fall semesters.	2013
Media and Communications Officer: International Camp on Communication & Computers for All Blind and Visually Impaired Youngsters (ICC), Athens, Greece.	2010

## TALKS AND POSTERS

Where users and data intersect to drive innovation for accessible, assistive and rehabilitative technologies <i>[Invited Talk] Purdue University</i>	March 2017
Where users and data intersect to drive innovation for accessible, assistive and rehabilitative technologies <i>[Invited Talk] Stevens Institute of Technology</i>	March 2017
Continuous Profile Models in ASL Syntactic Facial Expression Synthesis <i>[Poster] 11th Annual Machine Learning Symposium, The New York Academy of Sciences</i>	March 2017
Data-Driven Synthesis and Evaluation of Syntactic Facial Expressions in ASL Animation <i>[Invited Talk] College of William &amp; Mary</i>	February 2017
Data-Driven Technology Supporting Human Capabilities <i>[Invited Talk] University of Maryland – College Park</i>	February 2017
People with Visual Impairment Training Personal Object Recognizers <i>[Guest Lecture] Computer Vision (16-385), Carnegie Mellon University</i>	January 2017
Continuous Profile Models in ASL Syntactic Facial Expression Synthesis <i>[Poster] Rising Stars in EECS, Carnegie Mellon University</i>	November 2016
Supporting Orientation and Object Recognition for Blind People <i>[Talk] HCII Seminar Series, Carnegie Mellon University</i>	October 2016
Data-Driven Synthesis and Evaluation of Syntactic Facial Expressions in ASL Animation <i>[Invited Talk] Connected Experience Lab, HCII, Carnegie Mellon University</i>	July 2016

Measuring Participant Characteristics that Relate to Sign Language Technology Acceptance <b>Kacorri, H.</b> , Huenerfauth, M., Ebling, S., Patel, K., Willard, M., Menzies, K. [Poster] <i>Effective Access Technologies Conference, Rochester, NY, USA.</i>	November 2015
Incorporating Users in Tigres Research and Development <b>Kacorri, H.</b> , Poon, S., Hendrix, V., Kushner, G., and Ramakrishnan, L. [Poster] <i>Computing Sciences Summer Student Poster Session, Berkeley Lab</i>	August 2015
Automatic Recognition of Unified Parkinson's Disease Rating from Speech with Acoustic, i-Vector and Phonotactic Features An, G., Brizan, D.G., <b>Kacorri, H.</b> , Ma, M., Morales, M., Syed, A.R., Rosenberg, A. [Poster] <i>Computer Science Student Workshop, Graduate Center CUNY</i>	May 2015
Data-Driven Models of Linguistic Facial Expressions for ASL Animation [Invited Talk] <i>Department of Informatics and Telecommunications, University of Athens</i>	June 2014
How to have a fun internship at TRL? Design and Implement CapCap! [Talk] <i>IBM Research – Tokyo: Internship Final Presentation</i>	September 2013
Models of Linguistic Facial Expressions for American Sign Language Animation [Poster] <i>New York Women in Mathematics and Computing Workshop</i>	May 2013
[Poster] <i>Computer Science Student Workshop, Graduate Center CUNY</i>	May 2013
[Poster] <i>Google New York Regional PhD Summit</i>	February 2013
Models of Linguistic Facial Expressions for American Sign Language Animation [Talk] <i>Doctoral Consortium</i>	October 2012
[Poster] <i>The 14th Int'l ACM SIGACCESS Conference on Computers and Accessibility.</i>	

### SELECTED PRESS COVERAGE

“Animating Online Text into Sign Language” CUNYMedia: <a href="http://goo.gl/Zer0Vi">http://goo.gl/Zer0Vi</a>	April 2012
“University of Athens: Student volunteering program in support of students with disabilities” An article about the student-volunteering program the Accessibility Unit of University of Athens was running to help other students with disabilities. <i>Disabled.GR Magazine</i> : <a href="http://goo.gl/Ustt7B">http://goo.gl/Ustt7B</a>	December 2010
“Assistive Technologies – University of Athens” A TV program focusing on the research projects at the Speech and Accessibility Laboratory at University of Athens. <i>Orestis Theodorou, “Orizontes” at KYDON TV</i> : <a href="http://goo.gl/5Hx71B">http://goo.gl/5Hx71B</a> , <a href="http://goo.gl/EYY0fd">http://goo.gl/EYY0fd</a>	January 2009

### PROFESSIONAL AFFILIATION & MEMBERSHIP

- Affiliate, Lawrence Berkeley National Laboratory (2015-2017)
- Member of Association for Computing Machinery (ACM)  
Special Interest Group on Accessibility and Computing (SIGACCESS)  
Special Interest Group on Computer-Human Interaction (SIGCHI)
- Member of the Association for Computational Linguistics (ACL)  
Special Interest Group on Natural Language Generation (SIGGEN)  
Special Interest Group on Speech and Language Processing for Assistive Technologies (SLPAT)
- Member of the International Speech Communication Association (ISCA)