LENA REED
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EDUCATION

- PhD Computer Science, University of California Santa Cruz, Santa Cruz, CA — Expected June 2021
  GPA: 4.0
- M.S. Computer Science, University of California Santa Cruz, — June 2016
- B.S. Computer Science, Harvey Mudd College, Claremont, CA — May 2014
  GPA: 3.4 - Dean's List 5 Semesters, Graduated with Distinction
- Study Abroad Program, Hamilton College, Paris, France — Jan.-May 2013

RELEVANT COURSEWORK

Harvey Mudd College: Robotics Independent Studies, Verification-Centric Software Engineering, Artificial Intelligence, Machine Learning, Front-End Development
UC Santa Cruz: Machine Learning, Computational Models of Discourse and Dialogue, Information Retrieval, Production and Comprehension of Spontaneous Language, User Evaluation

COMPUTER SKILLS

Programming: Python, Java, HTML, CSS, Ruby on Rails, Haskell, Scala, LabVIEW, Weka, NLTK

HONORS

President's Scholar at Harvey Mudd College
National Achievement Scholar

CURRENT RESEARCH PROJECT

My current research project is Natural Language Generation. I'm working on exploring the generation of artificial and mixing data from different domains as a way to augment existing training data available to Neural Natural Language Generation (NNLG). Given the different methods for augmentation I'm exploring, I evaluate the NNLGs based on their ability to learn stylistic and semantic generalization.

RESEARCH EXPERIENCE

Research Assistant, UC Santa Cruz, *Controlling and Generalizing Stylistic Variation with Neural Natural Language Generators* — Mar. 2017 – May 2018
Creating datasets using Personage to experiment with seq-to-seq models to test their ability to learn stylistic variation. Creating tools for measuring semantic accuracy as well as stylistic variation.

Research Assistant, UC Santa Cruz, *Classifying Blog Stories into Emotion Categories and Identifying Positive/Negative Events and Targets* — Nov. 2014 – Feb. 2017
Finding patterns associated with positive and negative emotions using AutoSlog-TS and categorizing these blogs. Finding events in these

categorized blogs and associate these events and scripts of events with positive and negative emotions.

Project Manager, Harvey Mudd Computer Science Clinic, *Automated Fission Track Characterization in Apatite Crystals* Sept. 2013 – May 2014
Created LabView interface for modules. Use interface to adjust results of modules, such correcting results, adding missed features, and correcting false positives.

Research Assistant, Harvey Mudd Computer Science Research, *Robot Vision and Spatial Reasoning* June-Aug. 2012
Created a user interface that navigates a robot through a map. Created a program that directs robots through string messages and directly.

WORK EXPERIENCE

Teaching Assistant, Software Engineering/Algorithms, UC Santa Cruz Jan 2016-present
Run a lab, help students with homework, assist in class, evaluate homework

Data Science Intern, UserTesting, Mountain View, CA June-Sept. 2016
Tested sentiment analysis techniques on transcription data

Independent Contractor, Progressly, Palo Alto, CA July-Sept. 2014
Created an internal dashboard for the company website

Grader and Tutor, Software Devel & AI at Harvey Mudd College, CA Sept. 2013 – May 2014

Office Assistant, Office of Institutional Diversity at Harvey Mudd College, CA Sept.-April 2011/2012
Sent emails, organized events, organized the office and storage spaces

Intern, Triple Ring Technologies, Newark, CA June-July 2011
Compared modeling languages for circuits, gave a presentation on my findings.

PUBLICATIONS

Reed, L, Oraby, S. Walker, M. (2018) "Can Neural Generators for Dialogue Learn Sentence Planning and Discourse Structuring?", *Proceedings of the 11th International Conference on Natural Language Generation.* https://arxiv.org/abs/1809.03015

Reed, L., Wu, J., Oraby, S., Anand, P., Walker, M. (2017) "Learning Lexico-Functional Patterns for First Person Affect", *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics*.

Oraby, S., Reed, L., Tandon, S., Sharath, T.S., Lukin, S., and Walker, M. (2018) "Controlling Personality-Based Stylistic Variation with Neural Natural Language Generators", *19th Annual Meeting of the Special Interest Group on Discourse and Dialogue*. pg. 180-190.
Oraby, S., Reed, L., Sharath, T.S., Tandon, S., and Walker, M. (2018) "Neural MultiVoice Models for Expressing Novel Personalities in Dialog", *Proc. Interspeech 2018*. pg. 3057-3061.

Oraby, S., Reed, L., Compton, R., Riloff, E., Walker, M., and Whittaker, S. (2015) "And That's a Fact: Distinguishing Factual and Emotional Argumentation in Online Dialogue", *2nd Workshop on Argumentation Mining at NAACL 2015*.

Lukin, S., Reed, L., Walker, M., (2015) "Generating Sentence Planning Variations for Story Telling", *16th Annual Meeting of the Special Interest Group on Discourse and Dialogue.* pg. 188-197.
Oraby, S., Harrison, V., Hernandez, E., Reed, L., Riloff, E., and Walker, M. (2016) "Creating and Characterizing a Diverse Corpus of Sarcasm in Dialogue". *16th Annual Meeting of the Special Interest Group on Discourse and Dialogue.* pg. 31-41.

Rakshit, G., Bowden, K., Reed, L., Misra, A., and Walker, M. (2017) "Debbie, the Debate Bot of the Future". *IWSDS 2017.*

REFERENCES

Marilyn Walker
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