

EMILY SHENG

ewsheng at gmail dot com
Los Angeles, CA

EDUCATION

- PH.D. STUDENT IN COMPUTER SCIENCE** Aug 2015 - present
University of Southern California
Advisor: Dr. Prem Natarajan
Research interests: natural language processing, information extraction, scientific literature
- M.S. IN COMPUTER SCIENCE** Aug 2015 - May 2017
University of Southern California
- B.A. IN COMPUTER SCIENCE, COGNITIVE SCIENCE** Aug 2010 - May 2014
University of California, Berkeley

RESEARCH EXPERIENCE

- USC/ISI: Natural language processing** Aug 2015 - present
Research Assistant at University of Southern California/Information Sciences Institute
 - Information extraction, named entity recognition, and faceted search for biomedical literature
 - Experiments to define and classify different granularities of scientific entities in technical literature
 - Created the first annotated corpus of pedagogical roles and devised automatic classification techniques to study the pedagogical "value" of documents
- UC Berkeley/ICSI: Resolving prepositional phrase attachment ambiguity** Jan 2014 - May 2014
Research project at University of California, Berkeley/International Computer Science Institute
A survey of lexical, semantic, and contextual methods to resolve ambiguity (with Prof. Jerome Feldman)
- UC Berkeley/Walker Lab: Sleep study** June 2012 - May 2013
Research Assistant at University of California, Berkeley
EEG, MRI, and behavioral tests to study effect of sleep on adolescents
- UC Berkeley/Concepts and Cognition Lab: Yahoo Answers study** Aug 2011 - May 2013
Research Assistant at University of California, Berkeley
Extracted features of up-voted Yahoo Answers to find those favored in "good" explanations

PUBLICATIONS

- Sheng, E., Miller, S., Ambite, J. L., Natarajan, P. (2017). A Neural Named Entity Recognition Approach to Biological Entity Identification. To appear in *Proceedings of the BioCreative VI Workshop*.
- Sheng, E., Natarajan, P., Gordon, J., & Burns, G. (2017). An Investigation into the Pedagogical Features of Documents. In *Proceedings of the 12th Workshop on Innovative Use of NLP for Building Educational Applications* (pp. 109-120).
- Gordon, J., Aguilar, S., Sheng, E., & Burns, G. (2017). Structured generation of technical reading lists. In *Proceedings of the 12th Workshop on Innovative Use of NLP for Building Educational Applications* (pp. 261-270).

Oral presentations

- Sheng, E., Miller, S., Ambite, J. L., Natarajan, P. (2017). A Neural Named Entity Recognition Approach to Biological Entity Identification. *To be presented at the BioCreative VI Workshop*.

Poster presentations

Sheng, E., Natarajan, P., Gordon, J., & Burns, G. (2017). An Investigation into the Pedagogical Features of Documents. *12th Workshop on Innovative Use of NLP for Building Educational Applications*.

Sheng, E., and Natarajan, P. (2016). An Investigation into the Pedagogical “Value” of Documents. *CRA-W Grad Cohort Workshop and ISI Graduate Student Symposium*.

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER

July 2014 - July 2015

Expect Labs

San Francisco, CA

- Prototyped classifier for domain-specific named entity recognition to improve a natural language understanding system
- Full-stack development of developer platform tools

SOFTWARE ENGINEERING INTERN

May 2013 - Aug 2013

Samsung Telecommunications America

San Jose, CA

- Built back end of an analytics prototype project, including optimizations and automation
- Created custom ETL process to load data into a column-oriented Vertica database

TEACHING EXPERIENCE

TEACHING ASSISTANT

Aug 2015 – May 2016

Introduction to Computing course

University of Southern California