Shijia Liu

liu.shij@northeastern.edu

Education

Northeastern University, Ph.D. in Computer Science — **Boston, MA**
Advisor: David A. Smith — *August 2019 - Present*

Johns Hopkins University, M.S. in Computer Science — **Baltimore, MD**
Specialization: Natural Language Processing, Machine Learning — *August 2017 - May 2019*

Stanford University, M.S. in Electrical Engineering — **Stanford, CA**
Specialization: Optimization, Information Theory — *September 2012 - June 2014*

UCLA, B.S. in Electrical Engineering (Summa Cum Laude)
UCLA, B.S. in Physics (Summa Cum Laude) — **Los Angeles, CA**
Specialization: Signal Processing, Communication Systems — *September 2008 - June 2012*

Publications

Detecting de minimis Code-Switching in Historical German Books. Shijia Liu, David A. Smith. In the *Proceedings of the 28th International Conference on Computational Linguistics (COLING 2020)* [ACL]

Measuring the Similarity of Grammatical Gender Systems by Comparing Partitions. Arya D. McCarthy, Adina Williams, Shijia Liu, David Yarowsky, Ryan Cotterell. In the *Proceedings of the 2020 Conference on Empirical Methods in Natural Language Processing (EMNLP 2020)* [ACL]

On the Idiosyncrasies of the Mandarin Chinese Classifier System. Shijia Liu, Hongyuan Mei, Adina Williams and Ryan Cotterell. In the *Proceedings of the 2019 Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2019)*. [ACL]

Publications in Preparation

Detecting Reader Annotations in Printed Books with Self-Training and Posterior Adjustment.
Shijia Liu, David A. Smith

New Datasets to Benchmark Methods for Semi-Automated Biomedical Abstract Screening.
Shijia Liu, Thomas Trikalinos, Iain J. Marshall, Byron C. Wallace

Research In Progress

Language Models for Brian-Computer Interfaces
Develop word and character level transformer-based language models for typing predictions in BCI systems.

Multi-Language News Articles Alignment
Align and compare news articles reporting same events in different languages. Measure and predict missing

information in aligned news articles in particular languages.

Teaching Experience

Teaching Assistant for Programming in C++ at Northeastern University   **Boston, MA**
Instructor: Dr. Vidoje Mihajlovikj   *Spring 2020*

Course Assistant for Artificial Intelligence at JHU   **Baltimore, MD**
Instructor: Dr. Philipp Koehn   *Spring 2019*

Course Assistant for Natural Language Processing at JHU   **Baltimore, MD**
Instructor: Dr. Jason Eisner   *Fall 2018*

Course Assistant for Intermediate Programming at JHU   **Baltimore, MD**
Instructors: Dr. Sara More, Dr. Ben Langmead, Dr. Misha Kazhdan   *Fall 2017 - Spring 2018*

Industry Experience

Financial Software Developer at Bloomberg L.P.   **New York, NY**
Electronic Order Routing Group   *Oct 2014 - June 2017*

Software Engineer II Intern at Cisco Systems, Inc   **San Jose, CA**
Data Center Group   *June 2013 - August 2013*

Honors and Awards

Tau Beta Pi Member   2010
Champion Team Member, UCLA Microsoft Programming Contest   2009

Skills

– Programming Languages: Python, C++, C, Java, R
– Data Analysis: Matlab, SQL, Excel
– Operating Systems: Linux, Windows
– Deep Learning Framework: PyTorch, Huggingface