

- Experience analyzing and modeling text, audio, experiments, and simulations.
- Used statistics, machine learning, and NLP independently, in collaborations, and in courses.
- Created multiple public tools for analysis.
- Communicated work in papers, presentations, and teaching.
- **Skills summary:**
 - **Proficient:** Java, JavaScript, Python, R. **Experience:** C, C++, Matlab, MongoDB, SQL.
 - Logistic regression, experimental design/analysis, on-line learning, agent-based simulation, natural language processing, pandas/scikit-learn/numpy, SVM, MapReduce.

Experience

The MITRE Corporation, McLean, VA: Senior Data Scientist 2016–present

- Analyzed data and developed software for United States government sponsors using Python (e.g. pandas, scikit-learn) and JavaScript (e.g. Node.js, AngularJS).
- Conducted internally-funded research using text analytic and machine learning techniques.

University of Massachusetts Amherst: Senior Personnel, *NSF grant* 2014–2015

- Co-supervised graduate (3) and undergraduate (2) team's experiments and simulations.
- Developed agent-based learning simulations for validating linguistic theories using perceptrons, SGA, and EM (R, Python).

University of Massachusetts Amherst: Lecturer, *Linguistics* 2014–2015

- Designed and led a graduate seminar on computational models of language learning (3 students) and an undergraduate course in phonology (45 students).

The Data Incubator, Washington, DC: Data Science Fellow 2015

- Completed projects on web scraping, SQL, machine learning, NLP, MapReduce, and Spark.
- One of 2% of 3,000 applicants chosen for skill in statistics, data analysis, and programming.

University of Massachusetts Amherst: Consultant; Research Assistant, *NSF grant* 2009–2011

- Added regular expression entry and additional theoretical options for a new version of a tool used to calculate predictions of phonological theories (Java).
- Implemented multinomial logistic regression library for probabilistic linguistic models (R).

Time Warner Cable, Herndon, VA: Systems Engineering Intern 2008

- Implemented login synchronization (Ruby, LDAP), decreasing downtime.
- Created RPM packaging integration for Ruby code (C).

College of William and Mary, Williamsburg, VA: Instructional Tech 2008

- Designed software for instruction and research (Perl, Java).
- Deployed database management for online surveys (SQL), facilitating design.

Education

University of Massachusetts Amherst, Amherst, MA, USA 2014

- Doctor of Philosophy in Linguistics
 - **Thesis:** Computational modeling of learning biases in stress typology

College of William and Mary, Williamsburg, VA, USA 2009

- Bachelor of Science in Computer Science & Linguistics, *summa cum laude*
 - **Thesis:** Specialization methods and cataphoricity in coreference resolution