James Mullenbach

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EDUCATION

Master of Science in Computer Science (Specialization in Machine Learning),
Georgia Institute of Technology — Atlanta, Georgia — Expected December 2018
GPA: 4.00/4.00

Bachelor of Science in Computer Science (Concentrations in Intelligence & Media),
Bachelor of Science in Physics,
Georgia Institute of Technology — Atlanta, Georgia — December 2016
GPA: 3.90/4.00

ACADEMIC EXPERIENCE

Graduate Research Assistant — Spring 2017 - Present
Georgia Tech Computational Linguistics Lab — Atlanta, GA

- Studying the application of deep learning models to clinical texts with Professors Jacob Eisenstein and Jimeng Sun.
- Implemented neural models to predict medical diagnosis codes from clinical text documents.
- Improved upon previous state-of-the-art results on diagnosis code assignment on open-access MIMIC datasets. Paper submitted to NAACL 2018.

Graduate Teaching Assistant — Spring 2018, Spring 2017
Georgia Tech College of Computing — Atlanta, GA

- Created, tested, and graded problem sets for CS 4650/7650, Natural Language Processing.
- Guided students from a 100 person lecture in completing problem sets and understanding concepts in weekly office hours.

Undergraduate Research Assistant — Fall 2015 - Spring 2016
Borodovsky Computational Genomics Laboratory — Atlanta, GA

- Performed thorough data aggregation, cleaning, and statistical analysis in Python towards developing machine learning algorithms to identify genes using ribosome profiling data.
- Proposal funded by the Georgia Tech President's Undergraduate Research Award

INDUSTRY EXPERIENCE

Data Science — Machine Learning Intern — Summer 2017
Zappos.com — Las Vegas, NV

- Built datasets and engineered features, while creating reusable data cleaning and transformation pipelines, querying from billions of rows of clickstream data in AWS Redshift.
- Evaluated several machine learning approaches for classifying user behavior and predicting conversion, identifying appropriate performance metrics.

Software Engineering Intern — Summer 2015, Summer 2016
Urjanet — Atlanta, GA

- Developed, debugged, tested, and deployed various new features for a group of cloud microservices, such as distributed logging and aggregation.
- Worked with an agile team to ship first release of both a client web portal and RESTful API, making UI/UX design decisions to improve the overall client experience.
- Wrote and performed integration, end-to-end, and load tests with JUnit and JMeter to identify issues with cloud resources and scalability.

SELECTED CLASS PROJECTS

Compositional Models for Visual Question Answering — Fall 2017

- Addressing known issues in visual question-answering systems by designing models to overcome language priors. CS 8803, Vision and Language.

Localized Traffic Prediction — Spring 2017

- Aggregated, filtered, and analyzed data from several real-world sources to model influence of local events on traffic in New York City. CSE 6242, Data and Visual Analytics.

Relevant Image Suggestions — Spring 2016

- Built an interactive Chrome Extension to suggest images to accompany a text artifact. Used Google Search, face detection, and NLP techniques. CS 4464, Computational Journalism.

SKILLS

Expert: Python/SciPy stack, Java, PyTorch
Intermediate: SQL, MATLAB, Linux CLI, JavaScript, AWS, Keras
Basic: C, Assembly, Spark