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 Fall 2017 - Present
Georgia Tech Computational Linguistics Lab Atlanta, GA

- Experimenting with deep learning models applied to clinical texts with Prof. Jacob Eisenstein
- Implementing novel convolutional and attentional models to improve diagnosis code prediction in large clinical text corpora, with the additional goal of interpretability.

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

- Created, tested, and graded problem sets for CS 4650/7650, Natural Language Processing.
- Answered questions from a class of 100 students online and 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.
- Presented weekly research updates detailing progress, obstacles, and future work.

INDUSTRY EXPERIENCE

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

- Built datasets and engineered features, creating reusable data cleaning and transformation pipelines, and querying from billions of rows of clickstream data in AWS Redshift.
- Developed and evaluated several machine learning models for classifying user behavior and predicting conversion, working with the team to identify optimal 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.
- Scripted critical money-saving AWS tasks such as upgrading API usage and cleaning unused EC2 resources in bash and Python to keep spending lean.
- 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.

SKILLS

Proficient: Python/SciPy stack, Java, PyTorch
Comfortable: SQL, MATLAB, JavaScript, Linux/Bash, Git, AWS, Keras
Familiar: C, Assembly, Spark

SELECTED CLASS PROJECTS

Compositional Models for Visual Question Answering (Team) Fall 2017

- Addressing known issues in deep visual question-answering systems by composing models for relevant sub-tasks. Term project for CS 8803, Vision and Language.

Localized Traffic Prediction - numpy, pandas, scikit-learn (Team) Spring 2017

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

Relevant Image Suggestions - Flask, Heroku, NLTK, various APIs (Team) Spring 2016

- Built an interactive Chrome Extension to display suggested images to accompany an artifact of text. Used Google Search, face detection, and NLP techniques.