Robert M. Jones

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EDUCATION

Stanford University | B.S Computer Science **|** B.S. Mathematics | GPA 3.78 **Sept. 2015-June 2019**

- Completed Courses: Machine Learning, Computer and Network Security, Probabilistic Graphical Models
- Courses for 2018-2019: Natural Language Processing with Deep Learning, Compilers

Stanford University | M.S. Computer Science | Stanford, CA **Sept. 2018-June 2020**

- Planned Courses: Convex Optimization, Reinforcement Learning, Operating Systems

ENGINEERING EXPERIENCE

Intuit | Software Engineering Intern (Cybersecurity) | San Diego, CA **June 2018-present**

- Investigating the use of property graphs in static code analysis for vulnerability finding.

Stanford University | **Course Assistant |** Stanford, CA **Sept. 2017-present**

- Course assistant for CS110 (Fall 2017/Spring 2018), CS106A (Winter 2018), and CS106B (Fall 2018).
- Hold office hours, grade assignments and exams, answer homework and conceptual questions online.
- Run a weekly section for students to go in depth with practice problems.
- Aid students in debugging their programs and designing test cases

Oracle | Software Engineering Intern | Redwood Shores, CA **June 2017-Sept. 2017**

- Developed natural language understanding solutions for Oracle's mobile chatbot development platform.
- Investigated ways to bootstrap bot design process by enabling bot interaction with knowledge graphs.

NetQuarry | **Software Development Intern** | Fullerton, CA **June 2016-Sept. 2016**

- Designed responsive and interactive web pages with JQuery and other JavaScript APIs.
- Created SQL views from tables which are queried and displayed to the client or mapped to objects in code.

NOTABLE PROJECTS

Range Minimum Queries

- Investigated Range Minimum Queries and their extension to arbitrary dimensional spaces.
- Implemented multiple RMQ solutions (e.g., the Fischer-Heun Structure), compared runtime/memory usage.

Extracting Kinematic Information Using Pose Estimation

- Used convolutional neural networks to extract joint angles and velocities from a video file.
- Trained models using Caffe on Microsoft's COCO dataset.
- Replaced portions of large networks with smaller models (e.g. AlexNet) to reduce memory usage and runtime.

Online Harassment Reporting Chatbot

- Built chatbot using wit.ai to handle user reports of online harassment, integrated with Facebook Messenger.
- Enabled connection with Postgres database to automatically store information from the bot's conversation.
- Hosted a Flask application on Heroku to handle extraction of information for database storage.

Stack Overflow Query Prediction

- Trained machine learning classifiers to predict the outcome of Stack Overflow Questions.
- Used scikit-learn classifiers including support vector machines and adaptive boosting.

TECHNICAL SKILLS .

- Java, Python, C, C++, SQL, Cybersecurity, Machine Learning, Systems Programming, Networking, Natural Language Processing, Computer Vision, JUnit, PostgreSQL, Neo4j, DeepLearning4j, Tensorflow/Caffe