Elan Miller

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SUMMARY

Software engineer. Experienced in building full stack applications as well as machine learning model building, training and deploying.

EDUCATION

Washington University in St. Louis, St. Louis, Missouri, USA   Aug 2014 – Dec 2018
- Bachelor of Science and Master of Science in Computer Science

SKILLS

Experienced With: Python, Scikit-Learn, Typescript/Javascript, Java, AWS, Jenkins
Comfortable With: PHP, Flask, Laravel, Swift, HTML/CSS/Bootstrap, D3, MATLAB, SQL, Angular, React, Golang
Have Used: Keras, C++, R, VHDL, Hadoop, Xcode, TCPDUMP, Wireshark, Arduino, Raspberry Pi, Android Studio

EXPERIENCE

Software Engineer *Golang, Angular*   Mar 2021 – Present

Software engineer with Capital One
- Maintaining and adding features to capital one's commercial site
- Built back-end features such as a feature to email customers after filling out interest forms
- Created tableau visualizations of customer data and built a custom write back extension enabling product owners to update user information directly through the visualizations
- Added new front-end components

Software Engineer *Typescript, React, Python*   Aug 2019 – Feb 2021

Software engineer with Capital One
- Built and maintained the Feature Platform. This is the enterprise platform to compute, serve and register features for use in machine learning models
- Made key design and architectural choices in the creation of the platform
- Implemented site for users to discover, register and consume features
- Built a command line tool for users to persist and consume features

Software Engineering Intern *Keras, Flask, AWS*   Jun 2018 – Aug 2018

Software engineering internship with Capital One
- Developed a tool for localized image labelling. Integrated it with a YOLO architecture for optical character recognition.

Software Engineering Intern *Java, Spring, SQL*   Jan 2017 – May 2017

Software Engineering Co-op with Intelligrated
- Developed, tested and deployed backend software for warehouse execution systems
- Developed APIs that were used by over 50 other developers
- Fixed over 60 bugs listed in JIRA

Research Experience for Undergraduates *Python, Bash, Wireshark*   Jun 2016 – Aug 2016

Undergraduate Research Student at University of Nebraska-Lincoln
- Created Python and Bash scripts to download and test the 100 most popular apps in the Android store, as well as 700 apps from a third party Android store
- Captured data leaks from the apps using Tcpdump and Wireshark
- Studied software middleboxes and examined ways that middleboxes can be used to prevent user data leaks among mobile devices

PROJECTS

Sentiment Analysis *Hive, Python, Hadoop*
- A program to analyze 34,000 reviews for Amazon items and determine how many stars are associated with each review.
- Achieved an accuracy of roughly 70% using an n-gram analysis approach

Lost Pet Site *Angular, Bootstrap*
- A site for people to upload data about a lost pet and/or search for their lost pet

washureviews.com *jQuery, mySQL, php*
- A website for people to search for course reviews at Washington University.

Campus Dinner Report *Laravel, MySQL, AWS*
- Website to email and text kosher on campus dinner menus to subscribers
- Students sign up with their email and/or phone number and receive a message every morning with the kosher meal for the day

Machine Learning: Understanding Income in First World Countries *Python, Sci-kit Learn, Pandas*
- Ran various classifiers on the 48,000 samples in the Adult Data Set using 10-fold cross validation to determine the best classifier to predict whether a person makes over or under $50,000 a year
- Used random forests to determine feature importance, finding that age is the best predictor of income

ParkinSonar *Sklearn, Android Studio, AWS*
- Built an android app that can predict, based on user supplied voice recording, whether the user has Parkinson's disease.

Visualizing Demographic Trends in St. Louis *D3.js, jQuery, Bootstrap*
- A map displaying various demographics as well as trends over the years.