

Elan Miller

elanbmiller@gmail.com • <https://elanbmiller.github.io/>

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 <i>Golang, Angular</i>	Aug 2019 – 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 <i>Typescript, React, Python</i>	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 <i>Keras, Flask, AWS</i>	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 <i>Java, Spring, SQL</i>	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 <i>Python, Bash, Wireshark</i>	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 <i>Hive, Python, Hadoop</i>	
	▪ 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 <i>Angular, Bootstrap</i>	
	▪ A site for people to upload data about a lost pet and/or search for their lost pet	
	washureviews.com <i>jQuery, MySQL, php</i>	
	▪ A website for people to search for course reviews at Washington University.	
	Campus Dinner Report <i>Laravel, MySQL, AWS</i>	
	▪ 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 <i>Python, Sci-kit Learn, Pandas</i>	
	▪ 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 <i>Sklearn, Android Studio, AWS</i>	
	▪ 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 <i>D3.js, jQuery, Bootstrap</i>	
	▪ A map displaying various demographics as well as trends over the years.	