Jon Sims

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TECHNICAL SKILLS

Computer Languages	Frameworks	Databases	Other Technologies
Python, Bash, SQL/PLSQL, Java, Javascript, Ruby, C/C++, HTML/CSS, Haskell, Prolog	Flask, uiautomator, WebDriverAgent, scikit-learn, jQuery, NLTK, Rails, Bootstrap, Node.js	PostgreSQL, InfluxDB, MongoDB, Oracle Enterprise, SQLite, MySQL	Docker, Enterprise Linux Systems (Debian, Fedora, Ubuntu), Git /SVN, Android/iOS Testing Frameworks, ADB, Grafana, OpenVPN, STF

WORK EXPERIENCE

T-Mobile contracted through **Denali AI** (Bellevue, WA)

Software Engineer, Mobile Automation Testing, January 2017 - Present

- Designed and implemented a system for functional testing, continuous integration, and deployment for iOS apps on real devices.
- Enhanced our STF-based android testing system through validation testing and healing services. These services ensure that at any given point, our android devices and their providers are always operating properly. If a heal cannot fix whatever problem is going on, we receive an alert in slack with information about the problem so we can manually asses the situation.
- These tools and services include a flask-based dashboard for assigning performance tests to devices, webhooks and integrations communicating from Grafana's alerts to the dashboard for healing to slack for output, and many others running as systemd-initiated Docker containers.
- Scripted the provisioning and configuration of general Android devices using Python's uiautomator and Android's ADB frameworks so that they can be integrated into our STF-based device farm seamlessly.
- Assisted T-Mobile Java app developers with integration into our device farm, instructing and documenting for them how to develop JUnit/TestNG tests with the UIAutomator/Espresso UI testing frameworks.

Software Engineer, Machine Learning, June 2016 - December 2016

- Perform predictive analytics on customer data attributes using Python and its scikit-learn library.
- Implemented a data cleansing and validation mechanism to make unstructured JSON data into feature vectors in a way that scales for 168,000 unique feature-value pairs to be persisted to disk for 118 million customers.
- Tuned and automated training on predictive models using these feature vectors.
- Implemented a prediction verification mechanism to determine the accuracy of the predictions over time.

Tyemill (Seattle, WA)

Software Developer Intern, June 2015 - August 2015

- Worked with Ruby on Rails to develop a web application for financial analysis.
- My tasks involved calculations on the performance of portfolios containing 500+ companies over 20+ years, dealing with rebalances when securities were sold, and comparing the returns for different types of portfolio compositions (S&P, diversified, and stratified).

University of Puget Sound (Tacoma, WA)

Junior Database Analyst, September 2013 - June 2015

- I was a work study student with the university's database team, helping replace queries and views from their legacy database structure using the newer Oracle Peoplesoft.
- Using PL/SQL for views and Oracle Peopletools for queries, I met the database needs for various academic and financial departments around campus.

Risk Technology Solutions (Charlotte, NC)

Junior Linux Systems Administrator, June 2013 - August 2013

- ▸ Risktech writes customized trading software atop different open-source solutions. My role was to install and test the Opengamma platform for them, analyzing the potential costs and benefits of developing atop it.

EDUCATION

University of Puget Sound (Tacoma, WA)

B.S. in Computer Science and Mathematics (double major), August 2013 - May 2016

- ▸ Courses include compilers, NLP, AI, networks, abstract and linear algebra, modeling, optimization, numerical analysis, probability and stats.
- ▸ I also tutored students for my university's computer science department for several hours per week, typically helping students of introductory and intermediate computer science classes, for the last two years of my education.

INTERESTS

Association for Computing Machinery (University of Puget Sound)

President and Project Organizer, August 2013 - May 2016

- ▸ I participated in this club through several projects since the beginning of college, and was elected as its project organizer and president for my last year.
- ▸ We hosted several hackathons, including the ACM's intercollegiate programming competition.
- ▸ From the fall of 2015 through the end of my time there, we worked on a Rover project, automating the driving of an RC car using Arduino ultrasonic sensors.
- ▸ From the summer of 2015 through the spring of 2016, we built a native IOS/Android/web app Eventi (view the web app here), a method of viewing campus event posters from a mobile device as well as posting event information for our campus community. I focused on the Ruby-on-Rails backend, dealing with its API and database. It's now evolved into a startup called flypost
- ▸ We've also constructed a pseudo-supercomputer, which can successfully run threaded programs in parallel, out of several raspberry pi computers.

KUPS 90.1FM (University of Puget Sound)

Communications Engineer and Webmaster, August 2015 - May 2016

- ▸ Worked on several software projects for the station, most notably a new radio automation system/scheduling software as an open-source project. The software uses information from music files to datamine exact music metadata from online sources, and also finds currently-trending music to add to the rotation. After validating music files with this metadata, the software queries these same sources for several metrics of popularity (enabling the software to rank the frequency with which the music should be played) as well as for genres, subgenres, and similar artists. Using these various classification features, playlists of similar music are generated using a k-nearest-neighbors approach.
- ▸ Additionally, performed basic systems administration tasks on the various computer systems used within the station, as well as regular maintenance of the website kups.net.

Freelance Web Development

December 2012 - Present

- ▸ I set up an apache2 webserver for my home server with my personal website at the address jonsims.me, with a backup at aristeia.github.io. Additionally, I've designed websites for other clients, such as a website at j-walking.biz for a dog-walking business (but has since been deactivated, however, a backup exists here), and one for my uncle's old restaurant at tomsgrill.net.

Additional Collegiate Involvement (University of Puget Sound)

- ▸ Certified trip leader for Puget Sound Outdoors, as well as CPR and wilderness first-aid certified.
- ▸ Participant in the Putnam mathematics competition.