

Brett Whitelaw

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EXPERIENCE:

Spire Global – San Francisco, CA

Senior Software Engineer, February 2020 - Present

- Designed and wrote software running on orbiting nano-satellites (CubeSats), as well as ground systems, mostly in Python and C++, to move data, gathered from sensors on the satellites, down and into backend systems
- Trouble-shot issues both on orbiting satellites, as well as ground systems, during on-call rotations

DITTO Technologies, Inc. – Oakland, CA

Senior Software Engineer, August 2018 - May 2019

- Lead engineer for the backend software team, designing backend services (mostly web/REST), providing mentorship and guidance to junior engineers, and promoting good testing practices
- Worked on services that performed facial feature analysis, 3D face/head reconstruction, and rendering of eyewear on user images, largely written in Python running on AWS
- Worked in a Dev-Ops environment which included on-call shifts for all production systems
- Helped guide the organization towards a Scrum-style Agile process
- Assumed several interim roles including Product Owner and Scrum Master

Cisco Systems (in Security Applications and Services) – San Bruno/Jose, CA

Software Engineer (levels I, II, III and IV), September 2009 - April 2017

- Lead engineer for several backend software teams that focused on cloud/web services that supported security/threat-detection appliances running on customer premises
- Worked on a range of services including a globally distributed RESTful web service accessed by network security appliances, an authentication/authorization solution and associated registration service for those appliances, and a real-time, plugin-based, processing system for security/threat telemetry from customer end points
- Provided mentorship to engineers ranging from junior to highly experienced
- Worked in a Dev-Ops environment which included on-call shifts for our production systems as well as performing deployment operations and configuration management
- Led a team of off-shore contractors through all testing efforts (new, regression, performance) of the core service in a high visibility program and continued to guide the team as they took ownership of multiple products
- Championed effective agile/scrum (and test-driven) practices and processes across several teams
- Operated, at various points, in the roles of Product Owner and Scrum Master, as well as individual contributor

Solidica, Inc. – Ann Arbor, MI

Intern/Engineer, May 2008 - August 2009

- Wrote C code for embedded vehicle sensor networks
- Assembled prototype hardware/circuit-boards
- Performed both desk and field testing

PERSONAL WORK/PROJECTS:

SizeMatters (formerly InstaMax) – iOS App (Support for iPhone and iPad), Python Tool

Designed and wrote an iOS app, using Swift 4, that performs some simple image manipulations to aid in preparing photographs to be shared on Instagram. Available in the App Store.

Wrote a Python command line tool, and web-service, to perform the same functions as the iOS app. It's available in a GitHub repo and on my personal website. See <http://sizematters.brettwhitelaw.com>.

TECHNICAL:

Platforms: Unix - Linux, BSD, Mac OS X, iOS

Languages: Python, C/C++, Swift, Java, Scala (for testing), SQL, Shell, HTML/CSS/JavaScript

Applications/Tools: Docker, Nginx, uWSGI, Flask, Bootstrap, Redis, Memcached, (AWS) API Gateway, Lambda, SQS, S3, MySQL, CouchDB, Riak/CS, Jenkins, Ansible, Puppet, Jira, Rally

Development Methodologies: Scrum/Agile, Behavior/Test Driven, Waterfall

EDUCATION:

University of Michigan, Ann Arbor

B.S.E. Computer Engineering, May 2009

B.S. Performing Arts Technology – Concentration: Sound/Recording Engineering, May 2009

Honors: Engineering Dean's List and Engineering Honors, School of Music Merit Scholarship (2004-2009)