# Margaret Sy

*Software Engineer*

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## Experience

07/2017–
Present
**Tools and Infrastructure**, *Mesosphere*.
Provider of DC/OS, a cloud platform for containerized, data-intensive applications
- Facilitate engineering work by writing and improving pytest-based integration testing frameworks, CI setup, and CLI and web-based tools in Python for testing DC/OS.
- Debug issues that span the stack from machine image build configuration to microservice deployment while monitoring development blockers for patterns that could be mitigated by process changes.

04/2016–
06/2017
**Internal Infrastructure Team**, *Swift Navigation*.
Centimeter-accurate GPS for autonomous vehicles
- Infrastructure: (AWS, Docker) Deployment and maintenance of data capture and analysis pipeline for firmware performance metrics collection and hardware-in-the-loop testing. Configured development environments for projects and wrote system documentation.
- Data Analysis: (Python - pandas, numpy) Implement tests for creation of metrics to analyze receiver output as specified by GNSS algorithms and firmware teams.
- Scripting: (Python) Data capture interfaces for GPS receivers in desktop console and on-site server rack.
- Web: (ReactJS, Redux) Ported the interface for running test jobs from a fractal of bash scripts to a ReactJS webapp with integration into GitHub workflow.

08/2015–
04/2016
**API Developer**, *FLYR, Inc.*.
Price protection for travel booking
- Develop and support various REST API endpoints used by external partners and internally for airfare price prediction and airfare lock-in products.

06/2013-
08/2013
**Data Science Intern**, *TIER Research Group*, UC Berkeley.
Technology and infrastructure for emerging regions
- Collect tweets using Twitter API from a national power company's customer service feed. Identified tweets containing outage information using a Naive Bayes classifier, parsed and inferred locations of tweets based on unstructured text content.

## Education

Class of 2015
**BA, Computer Science**, *University of California, Berkeley*.

## Skills

Languages:
Most work experience in Python and Bash, but comfortable with work involving less familiar programming languages e.g. C, Java, Haskell

Other
Technical:
Experience with Git workflow for large open source projects, working in Linux environments, cloud services (particularly AWS ecosystem), Continuous Integration (Travis, TeamCity, Datadog), Docker, PostgreSQL