

# Leo Simmons

## Software Engineer / Machine Learning Engineer

leooscar.simmons@gmail.com • 617-584-9254 • <https://leosimmons.me> • <https://github.com/l Simmons2>

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### Technical Skills

Most experienced in the following areas:

- Backend/object-oriented programming with Python, Golang, Java
- Machine learning with Python, Keras, Tensorflow, PyTorch
- Distributed systems with Docker/Kubernetes
- Web scraping with a variety of Python-based technologies

Proficient in the following areas:

- Frontend web development with React, Backbone, Angular
  - Database management with RDBMS and non-relational stores like Elasticsearch, Redis
  - Stream processing with Kafka
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### Professional Experience

Software Engineer, WeWork, *San Francisco*

**April 2019 - Present**

- Part of WeWork's Core Platform - building "an OS for physical spaces".
- Work on a runtime for applications to work with IoT data in a device and location agnostic manner. Design and implement distributed architecture, stateful and stateless data-processing, observability.
- Work primarily with Golang, Java, Kubernetes, Kafka, gRPC.

Machine Learning Engineer, Foxy AI, *Remote*

**April 2019 - Present**

- Foxy AI is a New York-based company applying machine learning to the field of residential real estate. I work part-time, remotely from San Francisco.
- Work with deep learning and analogy-based machine learning techniques to generate insights from large amounts of residential real estate photos.
- Work primarily with Keras, Tensorflow, Annoy.

Junior Machine Learning Engineer, Boston Deep Learning, *Remote*

**January 2019 - April 2019**

- Boston Deep Learning is a consultancy building various machine learning products. I worked remotely from San Francisco.
- Developed convolutional neural networks with Keras and Tensorflow for a facial recognition app. Handled feature engineering, network architectural design, productionizing models.
- Blog post describing one of these models can be found at <https://medium.com/@leosimmons>.

Software Engineer, Si14, *San Francisco*

**February 2017 - July 2018**

- Si14 is a small consultancy that specializes in web scraping software.
- Worked as the primary developer of a distributed web scraping system. Wrote a scraping library in Python, maintained a system of AWS servers that use the library and Celery to complete a large volume of scheduled and on-demand scraping jobs.
- Maintained a web app built with Backbone/Marionette, Python, Flask, and MySQL for users to control on-demand services of the scraping system and view the data it collects.

- Integrated system with Loggly, TravisCI, AWS CodeDeploy for monitoring, testing, and deployment.

Software Engineer Intern, Harmony, *San Francisco*

**September - December 2016**

- Harmony is a startup building a platform that allows artists and other content producers to connect with their fans.
- Worked as a full-stack developer using the MEAN Stack and the Spotify API to build a public-facing console for content producers to use to interact with <https://settheset.com>.

Software Engineer Intern, Waylz, *Boston*

**June - August 2016**

- Waylz was a startup that built an app that allowed users to learn about the stock market by practicing trading on the stock market without using real money.
  - Worked on the Waylz app ([waylz.co](http://waylz.co)) as a full-stack developer using AngularJS, Bootstrap, Flask, MongoDB, and SQLite.
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## Personal Projects

- Implemented a deep reinforcement learning agent to solve the OpenAI Gym CartPole-V0 environment. Please find blog post at <https://medium.com/@leosimmons>.
  - Built a web app that allows users to “chat” with natural language processing APIs. Used React/Redux, Node.js, Express.js, and MongoDB. Please visit at <https://nlpme.net>.
  - Wrote a program that searches files like grep but debounces the search as the user types.
  - Code for these and other personal projects can be found at <https://github.com/lsimmons2>.
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## Research Experience

Arcaro Lab, University of Massachusetts Amherst

**January 2013 - May 2016**

- Researched the genetics of drug resistance in breast cancer.
- Co-author of publication *Fitzgerald et al. ELF5 and DOK7 regulation in anti-estrogen treated cells and tumors. Cancer Cell International 2016*

Enzyme Research Team, RIKEN

**April - August 2015**

- RIKEN is a public research institute in Japan, analogous to NIH.
- Researched the chemical modification of silk proteins.
- First author of publication *Simmons et al. Chemoenzymatic modification of silk fibroin with poly(2,6-dimethyl-1,5-phenylene ether) using horseradish peroxidase. RSC Advances, 2016*

Kaplan Lab, Tufts University

**June - August 2013**

- Researched silk fusion proteins as a material in biomedical applications.
  - Co-author of publication *Zhou et al. Control of silicification by genetically engineered fusion proteins: silk-silica binding peptides. Acta Biomateriala, 2015*
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## Education

University of Massachusetts Amherst

- Bachelor of Science in Biochemistry and Molecular Biology, 2016
- Dean’s List Honors for last four of seven semesters at school