

Shayan Sadigh

Github: [www.github.com/ShayanPersonal](https://github.com/ShayanPersonal)

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Education

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|----------------|---|---------------|---------------------------|
| Major: | Computer Science, B.S. + M.S. | GPA: | B.S. 3.60 / M.S. 3.85 |
| School: | University of California, Santa Barbara | Years: | 2013 - 2017 / 2017 - 2018 |

Skills

Favorite Languages

Python, C, C++

I've also used:

Javascript, Java, C#, MATLAB, x86, Ruby, SQL

Favorite Tools

Pytorch, Tensorflow, Git, Wireshark, gCloud, Bash

I've also used

AWS, Rails, Visual Studio, Perforce, OWASP ZAP

Course Papers and Research Activity

Real-time Path Tracing by Denoising with Convolutional Neural Networks (Fall 2017): Proposed and implemented real-time path tracer by repurposing Feature Pyramid Networks of Lin et al. (2017) for denoising.

Homomorphic Encryption on Neural Networks (Fall 2017): Implemented homomorphically encrypted neural networks with Vector Homomorphic Encryption of Zhou and Wornell (2014).

Exploring Seq2Seq For Generating Human-Like Responses on Internet Forums (Spring 2017): Made a Reddit bot by training a deep learning agent to predict responses to Reddit posts with Seq2Seq of Sutskever et al. (2014).

Twitter Sentiment Analysis with Neural Networks (Fall 2016): Educational paper detailing how to apply deep learning to the sentiment analysis task by creating a neural network in Numpy and again in Keras.

Extracurricular Activities

Kaggle Winner: Won **10th place** in **\$1.5 million Passenger Screening Challenge** as a solo competitor out of 518 teams. #1 featured contest on kaggle.com for 6 months. Created custom architecture where viewpoints are fed to ResNet CNN with spatial pyramid pooling and fused by LSTM with attention. Name on the leaderboards is Moejoe.

GaucheMap (300+ users): Published popular Chrome extension for UCSB students. Uses javascript, web scraping.

Piazza.com Web Vulnerabilities: Discovered and reported multiple severe vulnerabilities on Piazza.com.

Mobile Wifi Hijacker: Turned rooted Android phone into a WiFi "hijacker" that intercepts traffic from nearby devices.

Work Experience

Palo Alto Networks (paloaltonetworks.com)

Dataplane Engineer Intern (Summer 2017)

- Developed internal Python tool for parsing and interpreting PCAPNG packet capture format.
- Helped redesign team's lab. Set up subnets, network routes, moved and wired up racked devices.
- Worked in C to implement PCAPNG packet captures on flagship PAN firewalls.

Thermo Fisher Scientific (fe.com)

Software Engineer Intern (Winter 2017)

- Assisted in developing software for Hyperion Scanning Probe Microscope for Semiconductors.
- Fixed bugs, dependency issues in InstallShield installer and wrote new Wix installer in Visual Studio.
- Documented backup and restore procedures for new Hyperion system.

UCSB Brain Initiative (brainucsb.com)

Lead Web Developer (Fall 2015 to Spring 2016)

- Worked with campus researchers and a web designer to plan and maintain website for new department.
- Proposed and developed "brainucsb.com" using modern technologies in the Cloud (Heroku, Node.js)
- Wrote all backend logic (Javascript / Node.js) and much of frontend design (HTML / CSS).