

Derek Dang

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Education

University of San Francisco

B.S in Computer Science, Minor in Mathematics, Cum Laude

San Francisco, CA

Graduated May 2018

Professional Experience

LitePoint

Software Engineer

Sunnyvale, CA

Dec 2018 — Present

- Use Ranorex Test Suite to design and write custom scheduled and autonomous white box tests in C# for various browser-based interfaces including Flash and HTML5 for LitePoint test machines.
- Manage and maintain a proprietary Python API to control and communicate with LitePoint testers over TCP/IP with SCPI commands from a GUI or CLI.
- Write efficient scripts to increase everyday efficiency for the software release team.

Twitter

Senior Capstone Internship

San Francisco, CA

Jan 2018 — May 2018

- Managed a team of 5 to create a supervised classifier for malicious and benign websites on a dataset of ~1800 anonymous websites. In addition to fundamental machine learning concepts, we implemented extreme gradient boosting with a Raspberry Pi Cluster (rpicluster) to efficiently generate an automatic and scalable classifier with the best possible area under the curve score.

University of San Francisco

Computer Science Tutor

San Francisco, CA

Aug 2015 – May 2018

- Held weekly hours to guide students from Introductory Programming classes to Operating Systems on homework, projects, and labs. Debugged thousands of lines of code from hundreds of students.
- Maintained a set schedule with 7 other tutors to regulate help all day from Monday to Friday.

Projects

Dropbot

github.com/tmbernardo/dropbot

Messenger Bot

June 2018 — Present

Python, Flask, Heroku, PostgreSQL, SQLAlchemy, PGBouncer, Facebook Messenger API

- A subscription-based Facebook messenger bot hosted on Heroku featuring a database of products populated by a web monitor. Key design differences from other messenger bots include efficient database queries, asynchronous background services, and a responsive chat-based user interface.

rpicluster

github.com/rpicluster/rpicluster-stretch

Raspberry Pi Cluster

June 2017 — May 2018

Python, Shell Scripting, Raspbian OS, Fabric, zerorpc

- Built a user-friendly implementation of Raspberry Pi Clusters. A rpicluster easily integrates a real cluster of computers, removing the hassle of networking and remote procedure calls. The images come with a set of tools to aid setup, configuration, and updates. The scalable architecture allows anyone to effortlessly put together a cluster and start creating their very own distributed/parallel projects. Visit www.rpicluster.com to download the images and for more details.

xv6 Container System

github.com/dqdang/xv6-container-system

Containers in xv6

Nov 2017 — Dec 2018

C, Unix, Docker

- A container system for the MIT's OS xv6. Using file, process, and resource isolation, the tool allows users to create containers running on virtual consoles.