Derek Dang

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Education

University of San Francisco   **San Francisco, CA**
B.S in Computer Science, Minor in Mathematics, Cum Laude   *Graduated May 2018*

Professional Experience

LitePoint   **Sunnyvale, CA**
Software Engineer   *Dec 2018 — Present*
- Designed and maintaining a version control system for managing differences between releases.
- 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.
- Administer and support a proprietary Python API to control and communicate with LitePoint testers over TCP/IP with SCPI commands from a GUI or CLI.

Twitter   **San Francisco, CA**
Senior Capstone Internship   *Jan 2018 — May 2018*
- Managed a team of 5 to create a supervised classifier for malicious and benign websites on a dataset of over 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   **San Francisco, CA**
Computer Science Tutor   *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   **Messenger Bot**
github.com/tmbernardo/dropbot   *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   **Raspberry Pi Cluster**
github.com/rpicluster/rpicluster-stretch   *June 2017 — May 2018*
Python, Shell Scripting, Raspbian OS, Fabric, zerorpc
- Built a user-friendly implementation of Raspberry Pi Clusters. rpicluster easily integrates a real cluster of computers, removing the hassle of networking and remote procedure calls. Downloadable 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   **Containers in xv6**
github.com/dqdang /xv6-container-system   *Nov 2017 — Dec 2018*
C, Unix, Docker, QEMU, Valgrind
- A container system integrated into MIT's OS xv6. Using file and process isolation, the tool allows users to create containers running on virtual consoles, framing environments for various applications.