Simon Fong

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Education

University of California San Diego, La Jolla

Sep 2019 - Jun 2020

Master of Science in Electrical Engineering: Machine Learning and Data Science

University of California San Diego, La Jolla

Sep 2015 - Jun 2019

Bachelor of Science in Electrical Engineering: Machine Learning Depth

GPA 3.18

Work Experience

<u>Lab Tutor Ø</u>

Jan 2018 - Present

UC San Diego Python, Keras, OpenCV, Flask, Javascript, AWS

- Created a REST API to make image inferencing faster and more reliable.
- Mentored 10+ students on the Face Recognition lab and proposed projects.

Software Development Intern

Jun 2018 - Sep 2018

Amazon Robotics Team in Seattle, WA

Python, Sphinx, SCons, Docker, AWS Batch, EC2, ECS and S3

- Implemented a build system to reduce computations for machine learning using parallelized computation.
- Collaborated with research scientists to integrate their work into our system.
- Created majority of unit and integration tests.

Research Intern &

Apr 2017 - Feb 2018

UC San Diego, Team Lead of 3 Students

Python, C++, AWS, Dragonboard 410c, Sensors

• Developed a Coursera course about using single board computers in Internet of Things applications.

• Created lab assignments that focus on sensor integration and Amazon Web Services.

Projects

Yonder Dynamics & Mars Rover Team

Sep 2017 - Jun 2018

Python, Flask, Arduino

- Developed the backend for the control panel.
- Designed and implemented the communication interface to control the motors.

Not-Kiwi-Bot

Apr 2018 - Jun 2018

- Trained a Keras model to drive a small car within the lanes on a test course defined by markers on the ground.
- Designed and implemented GPS waypoint navigation with crash avoidance.

Automated Robotic Arm &

Oct 2017 - Nov 2018

- Developed an algorithm to command a robotic arm to fetch an object.
- Created a web application backend and frontend for manual control of the arm.

SD Hacks 2017: Bubble Wrap Ice Box 3000 🔗

Oct 2017

1st Place / 97 Teams

Python, Tensorflow, OpenCV

• A smart fridge that recognizes what you put inside using a re-trained a neural net.

Sign-In UCSD 🔗

Jun 2017 - Sep 2017

Nginx, Python, Flask, MongoDB

Developed a sign-in system that uses school ID cards to allow for efficient data collection and tracking at school events.

Skills

Languages: Python, C/C++, Arduino, Java, Javascript, HTML, CSS

Frameworks/Libraries: Tensorflow, Keras, OpenCV, Flask

Tools: MongoDB, Git, Linux, Amazon Web Services, Docker, Nginx, REST, JSON, 3D Printing, Fusion 360, Laser Cutting

Leadership

IEEE UC San Diego Outreach Chair 🔗

Jun 2017 - May 2018

• Planned, marketed, and executed circuits and computer programming outreach events with a reach of 100+ youth.