

# Brian Tom

San Francisco • btom.0831@gmail.com

## Education

---

### Bachelor of Science in Computer Science and Engineering

University of California, Irvine

June 2020

Irvine, CA

GPA: 3.81

## Skills

---

**Programming:** Python (Advanced), C++ (Intermediate), SQL (Intermediate), Full Stack Development (JS/HTML/CSS) (Intermediate), API Development, Machine Learning, Cloud Computing

**Engineering:** Team Management, Leadership, Scrum, LaTeX, Git

## Work Experience

---

### Software Engineering Intern in Test

Lam Research

June 2019 – September 2019

Fremont, CA

- Developed desktop application with PyQt to categorize data and train supervised machine learning models for analyzing equipment test results, providing troubleshooting guidance to technicians
- Integrated data from SQL server, QuickBase's API, and various data dumps to summarize failure categories automatically via supervised machine learning
- Identified manufacturing and testing failures in a clean room environment

### Reader for Intermediate Programming (Python)

University of California, Irvine

January 2018 – March 2018

Irvine, CA

- Processed student work using automated Python scripts, generating statistical data, and verifying testing materials

## Research Experience

---

### IoT Research Lead for Smart Home Energy Efficiency

California Plug Load Research Center

March 2018 – Present

Irvine, CA

- Led the research team using Agile techniques (Scrum) to drive better communication and produce demonstration-ready products
- Implemented infrastructure for energy usage management system utilizing smart plug and sensor data running on Python, MQTT, and MySQL, which interfaces with Slack, Google Home, and our custom web application
- Consulted with developers of new smart devices to discuss how they can provide useful consumer interaction
- Conducted interviews with candidates and recommended them for various research teams

### Software Developer

Engineers for a Sustainable World, University of California, Irvine

September 2016 – December 2017

Irvine, CA

- Created Digital Waste Bins, a set of responsive, graphical information panels for aiding people in waste separation at university food courts
- Developed GUI in Python using Pygame for display setup, visuals, and sensor reading.
- Researched methods of displaying text and images on screens with the ability to react to user interaction