

# Waylon Peng

Computer Science student at the University of California, Santa Cruz.

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## EXPERIENCE

### Google, Sunnyvale, CA // Intern

JUNE 2020 - SEPTEMBER 2020

- Created methodologies to identify mutexes in a network topology modeling service.
- Designed and implemented a full-stack data visualization dashboard using Angular to display these mutexes.
- Improved performance of existing backend queries by 50x.

### Google, Austin, TX // Intern

JUNE 2019 - SEPTEMBER 2019

- Designed procedures for analyzing string assets in Google Play services Android binaries.
- Trained machine learning model to predict translated string sizes.
- Integrated model into binary size tracking tooling for Google Play services developers.

### Mindspark Summer, Sunnyvale, CA // Instructor

JULY 2018 - AUGUST 2018

- Taught middle school students introductory Java using Eclipse.
- Taught middle/high school students game design principles using the open-source Processing library.

### ASEE SEAP, Naval Postgraduate School // Intern

JUNE 2017 - AUGUST 2017

- Designed procedures to manufacture and dope titania nanotubes.
- Constructed apparatus to characterize photoelectrochemical properties of fabricated nanotube arrays.
- Compiled, analyzed, and presented experimental data.

### UCLA David Geffen School of Medicine, UCLA // Intern

JULY 2016 - AUGUST 2016

- Created CUDA models of human cardiac cells to be run on university GPU clusters.
- Simulated and characterized biochemical conditions found in Long Q-T Syndrome patients.

## PROJECTS

### DangoDB

Sharded, fault-tolerant, RESTful key-value store built using Quart and asyncio. Enforces causal consistency through a vector clock mechanism. Designed to be simple and horizontally scalable using Docker.

### towa

Web-based DeepZoom image pyramid viewer, built using Vite.js, React and the OpenSeadragon library.

### Mission Possible

Rube Goldberg-like machine with sensor-driven events controlled by Arduino and Raspberry Pi units.

## EDUCATION

### University of California, Santa Cruz

SEPT 2018 - JUNE 2022

Computer Science BS,  
Computational Mathematics BA.  
**3.94 GPA**

## SKILLS

Presented in order of familiarity.

**Languages** - Python, Typescript, SQL, HTML, CSS, C++, C, Rust, OCaml, Scheme, Perl

**Databases** - PostgreSQL, SQLite

**Misc** - React, Angular, Linux/Unix, Git, Arduino/Raspberry Pi

## COURSEWORK

### UC Santa Cruz

- Algos and Abs. Data Types
- Applied Discrete Mathematics
- Computer Security
- Computer Systems and Asm.
- Complex Analysis
- Distributed Systems
- Intro to Networking
- Intro to Number Theory
- Intro to Probability Theory
- Linear Algebra
- Natural Language Processing
- Prin. of Comp. Sys. Design
- Systems of ODEs
- Software Engineering
- Vector Calculus