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.

EDUCATION

University of California, Santa Cruz

SEPT 2018 - JUNE 2022

Computer Science BS,
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 Systems and Asm.
- Complex Analysis
- Distributed Systems
- Intro to Networking
- Intro to Number Theory
- Intro to Probability Theory
- Linear Algebra
- Prin. of Comp. Sys. Design
- Vector Calculus

Ohlone College

- Introduction to C++
- Introduction to Java
- Discrete Structures

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.