Waylon Peng

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

(510) 996-8167
waylonpeng.com
waylonpeng@gmail.com

EXPERIENCE

UC Santa Cruz, Santa Cruz, CA // *Undergraduate Researcher*

JANUARY 2022 - PRESENT

- Assisted with development of firmware rehosting framework for security analysis.

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.

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.

FireFight

Interactive map application that displays major wildfires across California, their impact, and how to help victims. Created using React and Mapbox for HackCamp 2020.

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, Rust, C++, C

Databases - PostgreSQL, SQLite, Firestore

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

COURSEWORK

UC Santa Cruz

- Computer Security
- Computer Systems and Asm.
- Complex Analysis
- Distributed Systems
- Intro to Number Theory
- Intro to Probability Theory
- Linear Algebra
- Natural Language Processing
- Systems of ODEs
- Vector Calculus

AWARDS

Dean's Honors List

UC Santa Cruz // Winter 2019 - Fall 2021

CyberForce Competition, 2nd Place

US Department of Energy // 2021

NSA Codebreaker Challenge Solver

National Security Agency // 2021