Richard Tang

richardtang75@gmail.com | https://richardtang.work/
linkedin.com/in/ri-chard-tang/ | github.com/RichardTang75

WORK EXPERIENCE

Fullstack Engineer - ProvenAI **Aug 2024 — Sep 2024**

Startup assessing algorithmic fairness of AI tools

- Translated founder's vision into a full-stack web app featuring dashboard using Next.js, Typescript, Tailwind, MUI, plotly.js along with Firebase Auth, Firestore, AWS Amplify services
- Contract ended due to startup's financial constraints

Associate Software Engineer - Encodia **Nov 2020 — Feb 2023**

Proteomics startup developing new protein sequencing method

- Built core functionality of the main product (proteomics instrument), including serial hardware devices integration, MQTT connectivity for pub/sub messaging, and notifications via AWS iOT
- Enabled scientists to see trends across 30+ experiments by creating website for experiment visualization and comparison using Plotly Dash and MongoDB

Software Engineering Intern - Wolfram Research **May 2019 — Aug 2019**

The company behind WolframAlpha and Mathematica

- Implemented video buffering from remote URLs in Mathematica with performance comparable to browsers using C++ and also halved total bytes downloaded for playing video

PROJECTS

Search Steals **March 2024 — Current**

- Built and deployed a deal search website with Next.js, React, Typescript, MUI, and PostgreSQL
- Uses the edge runtime and SSR to deliver SEO friendly web pages

Mobile Screen Test **Jan 2024 — March 2024**

- Built and deployed a website for screen testing using vanilla Javascript, jinja2, markdown, and Parcel

Session Json Modifier **Aug 2019 — Jan 2020**

- Designed and built a Python application to modify Firefox saved sessions by processing the unique Mozilla filetype, decompressing the json with lz4, and visually displaying the saved session
- Implemented tab search functionality and adding and deleting of tabs and windows

Noise Map **Jan 2019 — Feb 2019**

- Built a topographic map generator in C++ focused on branched river networks
- Implemented poisson disk sampling, delaunay triangulation, and an urquhart graph
- Optimized and achieved 6x speedup (from 159s to 27s at a size of 1024x1024 on a debug build).

EDUCATION

Carnegie Mellon University, B.S. **May 2020**

SKILLS

Programming Languages**: Python, Typescript, Dart, Javascript, C++**
Other Technologies**: PostgreSQL, pandas, Flutter, React, Next.js, Django, Linux, git, Firebase**