Kol Crooks

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WORK EXPERIENCE

Duracell | SOFTWARE DEVELOPMENT INTERN   Bethel, CT | June 2021 – August 2021

- Designed and led project for an internal tooling website using React and TypeScript, that utilized NextJS to automatically generate web pages based on user content.
- Implemented authentication through Azure, and implemented authenticated server to server communication through custom generated tokens.
- Created video processing algorithms for measuring information about objects in high-speed video in Python with OpenCV and SciPy to quantify inaccuracies in the measurements.

Yale Biomedical Research Lab | SOFTWARE DEVELOPMENT INTERN   New Haven, CT | Summers of 2018 and 2019

- Involved in the creation of a PWA for MRI scan analysis that offered a better UI, and better functioning tools than an older system.
- Implemented a volume rendering modules using vtk.js, and internal data formats.
- Ported C based MRI scan smoothing algorithm to the web.
- Responsible for data visualization and analysis tools using d3.js, created data formats for saving data on these tools.

Bulletin Software | CO-FOUNDER   Redding, CT | Sep 2017 - Apr 2021

- Lead product development and set realistic goals for product direction.
- Integrated the product with existing platforms like google classroom, and utilized AWS as the host platform. Used Typescript, GraphQL, Express, React, and Postgresql as the core stack technologies.
- Created a web app (PWA) for viewing grades that over 70% of my high school used (700 Unique users). It used Vue for the front end and Azure as the host platform.
- Performed market research by creating focus groups with demographics that the product was intended for.

PROJECTS

Real Time ASL Transcription Neural Network ⬈   MAR 2019

Real time American Sign Language transcription algorithm.

- It was a highschool research project, and won multiple awards at science fairs, with the highest being second place at the CT-Stem Fair in 2018.
- Built model with Tensorflow in python and deployed it with a C# backend.

Stock Trader AI ⬈   APR 2020

Predicted stock market and crypto conversion rates.

- Reinforcement learning algorithm made with Tensorflow and used an RNN based model.

Open School ⬈   JUN 2021

Crowd Sourced Khan Academy.

- Users could create topics, and upload content that would enable students to learn different topics in the way that Khan Academy does.
- The stack was built with React, Nextjs, and MongoDB.

EDUCATION

University of British Columbia   Vancouver, BC | Sep 2020 - Dec 2023

BSc. COMBINED MAJOR IN COMPUTER SCIENCE AND STATISTICS

SKILLS

Languages: Javascript/Typescript, Python, C#, Java, R, Rust, C++, C, Go   **Databases:** SQL, PostgreSQL, MongoDB

Web Technology: React, Vue, GraphQL, Nextjs, Express, Jest   **Technology:** Tensorflow, OpenCV, AWS, Azure, Docker, Git