Venus Ku

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EXPERIENCE

Python Web Developer | U.S. Geological Survey (USGS), Remote   May 2022 – Present

Currently creating interactive research applications for the Pacific Coastal and Marine Science Center.

- Design and prototype a web app to visualize over a decade of geospatial data and assess coastal change
- Simplify team workflow by writing Python scripts to automate the download and processing of datasets
- Experiment with modern web frameworks and libraries to discover ways to sustain older data and code

Computer Systems Engineering Intern | BART, Oakland, CA   June 2023 – August 2023

- Prototyped a full-stack web application to streamline the maintenance workflow between different teams
- Designed database schema and user interface features based on input from end user interviews and workshops
- Gathered application requirements through research on BART's safety protocols for maintenance work

Front-End Developer | IDEASS Lab, UC Santa Cruz, CA   Sept 2021 – Aug 2022

Pilot community coastline monitoring project sponsored by the City of Santa Cruz and United States Geological Survey.

- Initiated the development and design of a website used by teammates and tourists to upload coastline images
- Created reusable UI components & documented repository structure for people to easily maintain in the future
- Scheduled meetings with our stakeholders to discuss expectations and feedback on the team's progress

Web Development Lead | Tech4Good Lab, UC Santa Cruz, CA   Sept 2019 – Dec 2021

Research lab exploring human-computer interactions through conducting studies on different web platforms.

- Led implementation of features (emojis, breakout rooms, chat logs) for six research studies within six months
- Assisted with three project codebases & documented learnings for new teammates to reference
- Examined user activity during research studies to iteratively optimize a project's clustering feature

Audio Plugin GUI Intern | Universal Audio, Remote   June 2021 – Sept 2021

Audio product company creating software and hardware used by music producers and engineers.

- Built six UAD Spark plugin GUIs using a mixture of JavaScript, in-house tools, HTML, and CSS
- Wrote sample code with a new in-house development library for teammates working on future plugin releases
- Resolved GUI issues found by QA to ensure that customers receive quality audio processing plugins

PROJECTS

Compass
- Chat-based web platform allowing large groups of students to be mentored by industry professionals
- Coordinated with professor, dev, UX/UI design, and research teams to effectively build features for production
- Developed with Angular, TypeScript, Redux, and Google Cloud's Firestore and Functions services

Perfect Gift
- Full-stack web application for suggesting gifts based on interests and wishlist of a loved one
- Collaborated in agile team of five undergraduates to develop a minimum viable product within ten weeks
- Built with React, eBay API, PostgreSQL database, Node.js server, Figma for UI design

TECHNICAL SKILLS

Languages: Python, JavaScript, jQuery, HTML/CSS, Java   **Databases**: Firebase, PostgreSQL, MongoDB
Frameworks: React, Spring, Express/Node.js, Angular   **Tools**: Git, Unix, Figma

EDUCATION

B.S. in Computer Science, University of California: Santa Cruz   Sept 2018 – Dec 2021
Honors: Highest Honors in the Major, Magna Cum Laude, Dean's Honors   GPA: 3.88/4.0