Susanna Mathew

Software Engineer
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Skills

Java, Python, C++, React / Javascript, R, SQL, HTML, CSS, Figma, Fullstack Development

Projects

Poker Engine • **Java**
Person versus computer card game that allows users to play Texas Hold 'em Poker with a chosen amount of computer generated players.

Mancala • **React Native**
Mobile app that lets users play mancala against a computer.

Shrooming App • **React Native**
Mobile app that analyzes data from the UCI Machine Learning Repository's data set on mushrooms. Built for 'Shroom-Hunting', providing an interactive platform about the edibility of different types of mushrooms.

Research

Blockchain and Social Change – Crypto, NFTs, DeFi, and the Metaverse

Worked with Dr. Martin Hilbert to inform ongoing research at UC Davis's computational communication research lab. Identified important case studies, strengths, weaknesses and threats of this new technological paradigm, and how they affect society in health care, education, and business.

Embodied Experiences with Data and Games

Worked with Dr. Cynthia Ching, researching and interpreting personal activity data from wearable devices, identifying future directions for embodiment data in schools and higher education applications.

Experience

Software Engineering Intern • First American

Summer 2022, Emerging Technologies Team SWE Intern

Built a peer to peer web platform called "Ptolemy" from the ground up to connect the technical community within First American by interactively showcasing all teams, projects, and tech stacks across core company applications.

- Used **Alteryx** to clean, filter, and join several datasets to build the back-end of Ptolemy.
- Set up a **MySQL** database for the records
- Wrote Python scripts to isolate and migrate 27000 rows of data into the database
- Used **Node JS** to write 20+ web APIs for Ptolemy that retrieved and processed data from the MySQL Database
- Conducted research and user interviews to identify the pain points and requirements of the target audience
- Used **Figma** to create wireframes for each page of the application, and then converted each wireframe into a complete mockup to code on the frontend
- Used **React JS, HTML, CSS, and Bootstrap** to build several responsive web pages with dynamic components

Computer Science Instructor • Juni Learning

June 2021 - Present (part time)

Teaches private programming classes to kids 8-18 years old.

Courses I teach:

- AP Computer Science A
- Java Level 1 & 2
- Python Level 1 & 2
- PyGame
- Scratch Level 1 & 2
- Javascript Level 1

CS Principles I Teach:

- Object Oriented Programming
- Inheritance & Polymorphism
- Event Handling
- Pygame Zero (Game Physics)
- Search and sort algorithms
- Big O & Time Complexity

Education

B.S. Computer Science

University of California, Davis, College of Letters and Sciences

Graduation: June 2024
Expected to complete the four year computer science program in three years, and graduate early.