Maggie Chen

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EDUCATION

University of California, Davis Sept. 2021 - June 2024

Bachelor of Science in Computer Science | Minor in Biological Science

Relevant coursework: Received A's in Programming in Python and C, Operating Systems, Object Oriented Programming, Computer Architecture, Algorithm Design & Analysis, Computer Networks.

EXPERIENCE

Software Engineer Intern | Research Assistant Oct. 2021 - June. 2024

Gong Lab | UC Davis

- Created a full-stack Python application that maps real-world COVID-19 protein datasets into analytical charts.
- Conducted BCA assay and successfully extracted proteins in over 50 samples of covid patients to be used in research.
- Delivered a presentation at an undergraduate research conference, showcasing data analysis on olfactory cleft proteomics.

Back-End Engineer Intern June 2023 - Aug. 2023

Cruzzie | Tokyo, Japan

- Implemented OAuth framework onto the company's web application to connect to various APIs such as Stripe and Google.
- Developed a scalable web application using React, Next.js, and Prisma that stores and retrieves necessary user information and authentication tokens in a secure database.
- Collaborated closely with CEOs in cross-functional teams, leveraging agile methodology to strategically plan new features for product innovation.

PROJECTS

Moody | *React Native, Python* April. 2024 - Present

- Generated personalized user data from HealthKit API to track and display the user's real-time Apple Health metrics.
- Integrated OpenAI API to create a chatbot system for dynamic helpful feedback and advice based on the user's Apple Health.

Tumor Classifier | *Javascript, Python, TensorFlow, Keras* May. 2024 - June 2024

- Architected and deployed a full-stack application on Heroku, utilizing a convolutional neural network (CNN) to accurately identify and classify tumor types.
- Implemented a robust 3d model interface with Three.js, enabling seamless uploading and processing of .mat files while integrating HTTP methods for efficient backend communication and data handling.
- Collaborated with a team of developers to train an AI model to achieve a 99.8% test accuracy with K-folds cross validation.

Protein Analysis Application | *Python, Pandas, NumPy* Sept. 2022 - May 2023

- Developed full-stack application to process a dataset of over 1000 proteins and calculates the p-values for statistical significance to generate and visualize volcano plots, Venn diagrams, and bar charts.
- Implemented a program enabling precise charting of relevant proteins and their corresponding identifiers from a dataset of thousands, facilitating accurate and efficient data analysis for proteomic research.

SKILLS & TECHNICAL TOOLS

- Languages: Python, C, C++, JavaScript, Go, HTML, CSS
- Tools and frameworks: ReactJS, React Native, Next.js, Three.js, Godot, Prisma, Heroku, TensorFlow, Keras, Pandas, NumPy, Git
- Communication: event management, easily adaptable, work well with teams, conscientious, and reliable.