Joanne Chang

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EDUCATION

Computer Science & Engineering, Master of Science *Graduation: June 2023*
Santa Clara University

- *Relevant Coursework*: Artificial Intelligence, Data Mining, Computational Creativity, Generative AI, Software QA and Testing

Computer Science & Engineering, Bachelor of Science *Graduation: June 2020*
University of California, Davis

SKILLS

Programming Languages: • Python, Java, C, C++, C#, Swift
Tools: • Git, Visual Studio Code, Jupyter Notebook, Unity

EXPERIENCE

Computer Engineering Research Assistant, *SCU Robotic Systems Laboratory*, Santa Clara, CA *March 2022 - June 2023*

- Contributed to the SCU SatOps team's mission control operations by setting up and maintaining ground station equipment, including rotors, microcontrollers, and antennas, as part of a NASA Ames's solar sail mission
- Developed and improved upon software to extract and plot satellite telemetry data from a flat satellite onto the data visualization platform Grafana, resulting in increased accuracy and efficiency of data analysis (*Python*)
- Created documentation and guides to assist current team members (a diverse team of 7 students) and future students in their roles on the team, ensuring seamless knowledge transfer and onboarding

Software Engineering Full-time Intern, *KLA*, Milpitas, CA *June 2019 - September 2019*

- Collaborated with a team of 9 engineers to develop 2 projects involving hardware equipment data (*both in Python*):
  (1) Process capability index / data analysis software to verify how well equipment meets specification limits
  (2) Hardware failure date predictor using different machine learning algorithms, specifically generalized linear models
- Conducted code reviews to ensure code efficiency and wrote test programs to validate results
- Presented at daily standup meetings, discussed feature requests with project stakeholders, and presented projects' progresses and results to senior management

PROJECTS

ReFocus Chrome Extension, *Attention Management Tools* (SCU) *May 2023 - June 2023*

- Collaborated with a team of 5 students to create a Google Chrome Extension that focuses on redirecting users' attentions more productively while online via website rerouting (*HTML, CSS, JavaScript*)
- Designed, implemented, and connected frontend aspects with backend services to ensure a seamless and responsive user experience that garnered positive feedback from beta testers
- Extended the project post-deadline into a personal project for further development

PointSwap (*pointswap.glitch.me*), *Hack for Humanity* (SCU) *February 2023, January 2024 - Present*

- Led a team of 4 students to develop a webapp for SCU students to request food and drinks, or fulfill the requests of other students using their extra dining points (*HTML, CSS, JavaScript*)
- Allocated tasks and collaborated closely with team members to ensure a functional and user-friendly web interface, with an individual primary focus on the backend (through implementation of a SQL database)
- Successfully converted the project into a long-term project after the hackathon, utilizing Git for version control

Aggie Dish App, *Senior Design Project* (UC Davis) *January 2020 - June 2020*

- Worked closely with members of a 4-student team and a mentor to design, develop, and test an iOS mobile app that displays UCD meal menu data in an easily accessible and readable format
- Acquired proficiency in using protocol buffers (via gRPC methods) to access specific eatery and meal menu data from the Firebase database, ensuring efficient data transfer and display on the frontend (*Java*)
- Demonstrated ability to work within tight engineering constraints put on project, including adhering to strict design requirements and going through extensive code review processes