DAVID SONG

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EDUCATION

San José State University San José, CA
B.S., Computer Science Expected May 2025

- **Relevant Coursework:** Data Structures and Algorithms, Object-Oriented Design, Computer Systems, Data Analysis, Data Visualization, Operating Systems, Information Security, Formal Languages and Computability

SKILLS

- **Languages:** Java, Python, C, SQL, JavaScript, HTML, CSS, MIPS Assembly
- **Developer Tools:** Visual Studio Code, Eclipse, IntelliJ, Blue-J, Google Colab, CLion, Ubuntu
- **Technologies / Frameworks / Libraries:** Git, Github, Jupyter, Node.js, Next.js, React

PROJECTS

Energy Dashboard | https://github.com/hanbit0218/energy_dashboard.git Nov 2023 - Dec 2023

- Leveraged SQL and Python to create a user-friendly, interactive dashboard
- Analyzed and presented a robust dataset comprising over 3000 entries, offering insightful visualizations of global energy usage patterns and predictive models forecasting future trends over the next decade
- Used Pandas, NumPy, and Panel for data manipulation and visualization
- Utilized: Python, SQL, Pandas, NumPy

HydroSense | https://github.com/hanbit0218/HydroSense.git Oct 2023 - Nov 2023

- Developed a device capable of measuring soil moisture levels and transmitting this data to a web application for user analysis with an accuracy rate of approximately 80%
- Created the project's front end, taking the lead of the frontend team consisting of 5 other members, to design and implement the user interface and user experience functionalities over 5 weeks
- Redesigned the layout on Figma and the routing of the website's files from page routing to app routing as we shifted from React to Next.js
- Utilized: Next.js, React, Node.js, Figma, Firebase, JavaScript, HTML, CSS, Python

Simulation Station | https://github.com/hanbit0218/MVC-Apps.git Apr 2023

- Developed 4 diverse scenario simulations, encompassing both realistic and fictional settings such as a prison, a plague outbreak, animals flocking, and a bustling street of commuters
- Organized the user interface buttons and designing a user-friendly layout to implement the functionality of buttons, ensuring an engaging and interactive user experience
- Applied the Model-View-Controller (MVC) pattern to successfully deliver the Simulation Station project, featuring 4 captivating and responsive scenario simulations
- Utilized: Java, Object-Oriented Programming

LEADERSHIP EXPERIENCE

Frontend Lead, Theta Tau - Professional Engineering Fraternity Sep 2023 - Dec 2023

- Led the training of the frontend team on essential tools including Git, Github, Figma, ReactJS, and Next.js
- Provided comprehensive education on frontend development languages such as JavaScript and CSS to enhance the team's skill set
- Added crucial features on the HydroSense website that seamlessly transfers data between Firebase and Google Sheets

Academic Chair, Theta Tau - Professional Engineering Fraternity Sep 2023 - Dec 2023

- Advised and mentored over 5 Potential New Members (PNMs) of Theta Tau in Java, Python, and other Computer Science subjects
- Instructed PNMs on complex programming concepts like recursion and dynamic programming, supporting their preparation for Data Structures and Algorithms coursework
- Coordinated and hosted workshops aimed at refining professional skills such as writing, speaking, and networking, achieving a 90% attendance rate

Project and Development Lead, Academy of Music and Art for Special Education Aug 2017 - May 2021

- Orchestrated two gala concerts and three exhibitions in Cupertino and San Diego, showcasing projects with a 90% turnout for both staff and students
- Initiated the development and completion of 30+ art projects annually
- Facilitated the setup of showcases for the team's projects and actively contributed to the organization of concerts