Stevi Dunn

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EDUCATION

University of California Davis ***2023-2025***
Bachelor of Mechanical Engineering | Minor in Computer Science |
California Maritime Academy ***2020-2022***
Lower division engineering coursework completed

WORK EXPERIENCE

Software & Controls Intern **at Mainspring Energy** ***Feb. 2023 - July 2023***

- Developed a module for controlling spring temperature for 'linear generator', utilizing C++ and Python
- Gained experience in the software development lifecycle, utilizing tools such as GitLab and Git Bash (CMD).
- Acquired understanding of controls hardware architecture and applied object-oriented programming principles
- Practiced unit test driven development and participated in an agile development environment.
- Collaborated within cross-functional scrum teams, adhering to sprint (3-week) work trajectory timelines.
- Managed tasks through GitLab's ticket system, breaking down assignments into manageable subcategories
- Created an 'edge module' interfacing with the linear generator's gateway to acquire real-time data readings.
- Achieved a high-frequency update rate (1 Hz) for temperature interpolation, setting a precedent within the company

Engineering Cadet at The Ship Golden Bear ***May 2022-July 2023***

- Collaborated with licensed engineers in the operation and maintenance of critical equipment, including diesel generators, compressors, centrifugal separators, oil-fired boilers, main engines (MEs), and bus bar systems
- Acquired practical skills in electrical system troubleshooting and problem-solving

Undergraduate Student Research at California Maritime Academy ***Aug 2021 - Nov 2022***

- Conducted computer modeling of bio-locomotives within liquids of varying viscosity, employing 3D mathematical models
- Focused on analyzing and comparing model results with physical experiments, leveraging Particle Image Velocimetry (PIV) for capturing instantaneous fluid motion profiles
- Utilized software to transform images into vector field representations, effectively visualizing forces and motion across designated volumes

Corporate Intern **City Experiences** ***May 2021– July 2021***

- Assisted the engineering department in conducting 'sea trials' for a new hybrid electric vessel.
- Inspected and documented functionality of onboard wind turbines and photovoltaic solar arrays.
- Collaborated with the IT/software department to enhance the company's online security protocol.
- Installed and tested new cybersecurity software to ensure data protection.

LEADERSHIP EXPERIENCE & ACTIVITIES

Space and Satellite Systems **Davis, CA**
Attitude Determination and Control (ADCS) Software *2023*

- Function consolidation: ‘determination’ function written to take in the time and some sensor data and run all of the individual determination pieces in order to calculate our attitude.
- Main ADCS function declaration; brainstorming and implementation with how to connect to flight software for data collection (in progress)
- Assisting with B-dot algorithm implementation for slowing of satellite rotation

Keller Pathway Fellow **Davis, CA**

- The Keller Pathway Fellowship provides an opportunity for UC Davis Aggie innovators to expand their network and move research and ideas off campus and into the world.
- Participating in business ideation, competition and mentorship opportunities to develop a greater understanding of entrepreneurship and leadership

SKILLS & INTERESTS

Computer: Python, C++, HTML, CSS, Git Bash, Git Lab, Git Hub, Jira, Object Oriented Programming, Data Structures, Algorithms