SUNAY DAGLI

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Objective

Highly organized and solution-oriented undergraduate passionate about the intersection between software development and impact-driven fields such as sustainability. I am authorized to work as a U.S. citizen.

Education

University of California, Berkeley - College of Engineering **Expected May 2023**
GPA: **3.67/4.0**

B.S. Energy Engineering, B.S. Electrical Engineering & Computer Science

Relevant Coursework:

- Structure and Interpretation of Computer Programs
- Data Structures
- Multivariable Calculus
- Designing Information Devices and Systems I & II
- Discrete Mathematics and Probability Theory
- Linear Algebra and Differential Equations
- Human Biological Variation
- Energy and Society

Experience

Software Engineering Intern, Lawrence Berkeley National Laboratory **May 2020 - Present**

- Worked in the HydroGEN Data Hub team to combine non-proprietary experimental and computational data on advanced water splitting materials into searchable materials data infrastructure for 5 national laboratories and 30 funded projects
- Developed Python and web search platform, metadata parsers, and clean GUI using modern design principles to allow scientists to query a CKAN database to find and select data points and upload/download data; presented a poster of the project to faculty

Software Developer, Moev. Inc **May 2020 - August 2020**

- Developed electric vehicle charging infrastructure determining the most scalable and economically deployable options for charging EV fleets by parsing through existing data and inputting it into a custom algorithm optimized for efficiency and cost-effectiveness
- Presented algorithms to the company to use internally and for potential clients, such as the Los Angeles Department of Transportation, in an effort to transition to more eco-friendly transportation cost-effectively.

Energy Engineering Intern, UCLA Smart Grid Energy Research Center **June 2018- September 2018**

- Remodeled and engineered a solar, wind, and battery-powered microgrid on Catalina Island, California
- Designed and developed a MATLAB Simulink simulation to determine the viability of the microgrid to remove diesel generators
- Established legitimacy for and improved the current state of energy-management; saved island time and resources
- Published a technical research paper and presented to UCLA faculty and Ph.D. candidates

Projects

InGameStats - Seamless GUI for Tracking Basketball Statistics

- Created Java GUI for basketball leagues to input real-time statistics and determine the best players and strategies to employ
- Optimized GUI for older coaches through a clean, functional, and easy to use user interface
- Deployed in North County Basketball and Yorba Linda Basketball recreational leagues as an accessory for coaches to use

Website for Masked Heroes Initiative Nonprofit

- Developed website using HTML, CSS, and JavaScript for a nonprofit that I helped establish that donated over 6000 masks through grassroots funding to combat COVID-19 spread, featured by L.A. Times and local congressmen
- As Chief Technology Officer, updated maps on the site, uploaded blog articles, and promoted awareness of COVID-19 information

Skills

Languages: Python, Java, HTML, CSS, JavaScript, SQL, C
Platform/Tools: React, MATLAB, Pandas, NumPy, SciPy, Flask, Simulink, GUIs, IntelliJ, Eclipse, Git, Adobe Suite, Figma, Visual Studio Code, PyCharm, Microsoft Office Suite, LaTeX, Jupyter, CKAN, Bootstrap

Extracurriculars

Treasurer, Institute of Electrical and Electronics Engineers (IEEE) **August 2019 - Present**

- Managed and distributed $25,000 of funds to IEEE student-run courses, events, and activities
- Drafted and presented financial summaries of the organization's semesterly activities to the national branch of IEEE
- Supervised allocation of funds from the Associated Students of the University of California and Engineering Student Services

Mentor, Berkeley Engineers and Mentors (BEAM) **August 2019 - Present**

- Inspired and taught elementary-aged students through science experiments in an effort to provide equal STEM-education access to low-socioeconomic areas within Alameda County
- Customized lessons to allow students to learn seemingly advanced scientific concepts such as computer science or the importance of renewable energy