SUNAY DAGLI

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sunaydagli

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.

Skills

LANGUAGES

Python
Java
C
SQL
JavaScript
HTML
CSS
RISCV
R
x86

PLATFORMS/TOOLS

React
MATLAB
Simulink
Pandas
Numpy
SciPy
Flask
GUI
Figma
Protocol Buffers
CKAN
LaTeX
Jupyter
Bootstrap
Adobe Suite
Microsoft Suite
IntelliJ
Eclipse
PyCharm
Visual Studio Code
REST API
C3 AI Suite

Awards

Southern California Edison · Howard P. Allen Scholarship — 2019

Indian American Heritage Foundation · Academic Scholarship — 2019

Education

University of California, Berkeley — Aug. 2019 to Current
Energy Engineering 2023
Electrical Engineering & Computer Science 2023
Relevant Coursework: Structure and Interpretation of Computer Programs, Data Structures, Multivariable Calculus, Designing Information Devices/Systems, Linear Algebra and Differential Equations, Energy and Society, Great Ideas in Computer Architecture (Machine Structures), Efficient Algorithms and Intractable Problems, Introduction to Artificial Intelligence, Operating Systems and Systems Programming, Introduction to Electric Power Systems

Employment

UC Berkeley Hybrid Systems Laboratory — Berkeley, CA
Undergraduate Research Assistant — Sept. 2021 to Current
- Research on the project 'Navigating Autonomous Seaweed Growth Platforms by Leveraging Complex Ocean Currents'
- Utilize C3 AI platform to leverage complex ocean currents and machine learning to navigate solar-powered floating platforms for seaweed growth and carbon sequestration through open-sourced data, control and learning methods, and path planning simulations using Python

Google — Remote
Software Engineering (STEP) Intern — May 2021 to Aug. 2021
- Created internal command line interface bridging Google Cloud infrastructures to obtain data about virtual machines
- Implemented Java and SQL based tools as well as a front-end web UI for table visualizations with Junit and end-to-end testing
- Simplified workflow for engineers by centralizing and automating debugging tasks
- Completed entire development process, including writing design docs, implementation, going through design reviews, and launching internally

UC Berkeley Electrical Engineering & Computer Sciences (EECS) — Berkeley, CA
Academic Intern — Jan. 2021 to May 2021
- Tutored about 50 students a week on topics such as asymptotic runtimes, graph algorithms, counting and comparison sorts, various data structures, and more while assisting in labs

Lawrence Berkeley National Laboratory — Berkeley, CA
Software Engineering Intern — May 2020 to May 2021
- Worked in the HydroGEN Data Hub team to combine non-proprietary experimental and computational data on advanced water splitting materials into searchable 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

Moev Inc. — Los Angeles, CA
Software Developer — May 2020 to Aug. 2020
- Established electric vehicle charging infrastructure determining the most scalable and economically deployable options for charging EV fleets by parsing through existing data and optimization algorithms on efficiency and cost-effectiveness
- Produced Python algorithm deliverables 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

UCLA Smart Grid Energy Research Center — Los Angeles, CA
Energy Engineering Intern — June 2018 to Sept. 2018
- Remodeled and engineered a solar, wind, and battery-powered microgrid on Catalina Island, California, using data from UCLA
- 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

Projects

InGameStats
- Created Java GUI for basketball leagues to input real-time statistics and determine the best players and strategies to employ
- Deployed in North County Basketball and Yorba Linda Basketball recreational leagues as an accessory for coaches

Website for Masked Heroes Initiative
- As Chief Technology Officer, developed a website using HTML, CSS, and JavaScript for a nonprofit that I helped establish that donated over 30,000 masks through grassroots funding to combat COVID-19 spread, featured by L.A. Times and local congressmen

Activities

Institute of Electrical and Electronics Engineers (IEEE) Student Branch · President — May 2021 to Current
- Established and implemented overall IEEE visions, operations, and activities through professional development events, research fairs, and team projects for over 100 general members
- Organized and led various leadership and general meetings
- Developed positive relations with University of California affiliated organizations and IEEE Nationals
- Assisted in management of two student-run courses: introductory robotics (Micromouse) and Hands-on PCB Design

Institute of Electrical and Electronics Engineers (IEEE) Student Branch · Treasurer — Aug. 2019 to May 2021
- Managed and distributed $25,000 of funds to IEEE student-run courses, events, and activities
- Prepared 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

Berkeley Engineers and Mentors · Mentor — Aug. 2019 to Current
- 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

Publications

Technical Research Paper · UCLA Smart Grid Energy Research Center — June 2018 to Sept. 2018
Published a technical research paper on my developed renewable microgrid and presented to UCLA faculty and Ph.D. candidates