Claire Brenton

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EDUCATION

University of California, Los Angeles | Los Angeles, CA Expected Graduation May 2025
Bachelor of Science in Computer Science, Concentration in Electrical Engineering *Cumulative GPA: 3.9/4.0*

Relevant Coursework*:* Data Structures, Algorithms, Object-Oriented Design Principles, Linear Algebra, Single/Multivariable Calculus, Differential Equations, Web Design and Development, Project Management, Battery Design

SKILLS AND TECHNOLOGIES

Languages: C++/ C, Python, JavaScript, CSS, HTML
Technologies: ReactJS, Linux, Shell

EXPERIENCE

Sony Pictures Imageworks Internship **Culver City, CA**
Intern *May 2022 - Aug 2022*

- Performed cross-analysis on two types of CPUs for use in Sony's datacenters to render 3D objects into 2D film frames. Compared the energy usage and cost per kW of each processor under compute-intensive ray tracing operations.
- Compared cost and environmental impact of two data center geographical locations with different environmental conditions powered by hydroelectricity and fossil fuels. Performed analysis on the difference in operating cost and carbon footprint of each overtime producing digitally animated films using tens of thousands of processor cores for rendering.
- Developed summary analysis using Excel showing energy and carbon footprint metrics for upcoming 2024 feature films. My data was published in the Summer 2022 Corporate Sustainment Report.

Society Of Women Engineers Website Development Committee **Los Angeles, CA**
Active Member *Sept 2021- Present*

- Re-architected front-end website information pages of *sweucla.*com including committee descriptions and graphics. Implemented yearly calendar using CSS and formalized design features. Fixed scalability bugs to improve user experience.
- Implemented backend modifications to *swe.ucla.edu* and reorganized the website database to improve readability and organization.

Chi Omega Fraternity **Los Angeles, CA**
Active Member *Sept 2021- Present*

- Guided new members into the chapter while communicating with the board to ensure smooth and welcoming transitions while educating new members on the chapter philanthropy.

PROJECTS

Membership Portal | *Javascript*

- Implemented user database and website interface allowing users to subscribe to UCLA SWE and to become a member via the main website. Application now stores relevant user record information for member mailing lists.

Mentorship Matching Algorithm | *Python*

- Designed and implemented a matching algorithm for The Society of Women Engineers' Mentorship Program to algorithmically match student mentors to mentee groups based on compatibility. Criterion for matching included major similarity and academic interests. Groups designated by this algorithm were used in the 2022 SWE Mentorship Program.

Nanofabricated Supercapacitor Design

- Spearheaded Nanofabricated Supercapacitor design and construction in UCLA Tolbert Laboratory alongside Professor Tolbert and UCLA graduate students. Presented charge/discharge time data to a panel of UCLA Nanoscience Professors.

Girls Who Code Initiative

- Pioneered initiative at my high school alma mater to empower high schoolers who identify as female to pursue computer science by preparing and presenting weekly presentations on coding topics and applications to spark interest.
- Taught a 5-week Python course to high school girls during school lunches where girls concluded with a final coding project