EMILY HARRISON

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I'm seeking work involving both technical expertise and interpersonal/business skills. I am optimistic, fun, and motivated by working with people. Hard-working & intellectually curious in many fields, self-starter and rapid learner. Interested in hybrid work, travel, & (international) collaboration. Bilingual Spanish speaker.

RELEVANT COURSEWORK

Engineering Projects I, II, & III
Circuits I, II, Linear Systems
Microelectronics, Digital Systems
C Programming for Elec./Comp. Eng
Calculus 1, 2, & 3, Differential Eq.
Interpersonal Communication
Public Speaking
Science Writing
Organic Chemistry 1, 2, & Labs
Material Science

LANGUAGES

Spanish- Bilingual, C1 Studied in Spain
French, Mandarin - Beginner, A1

HONORS

Dean's List - Fall 2019 - Present
Boettcher Scholarship Finalist
NSLI-Y Scholarship Recipient
CU Esteemed Scholar - Sewall Award

SKILLS

PROGRAMMING
Python, C, Altium, Arduino, MATLAB, Verilog, Assembly (NIOSII), Git, Stata.
Learning: LabView, Dash, ArcGIS, Django, SQL, PostgreSQL, Azure

ENGINEERING
Soldering, rapid prototyping, PCB design/assembly, organic chemistry synthesis techniques, PowerBI

SOCIAL
Strategic thinking, organization, hybrid & remote work, presentations, leadership, project management

EXRACURRICULARS

References available upon request.
Interests/Pursuits: cooking, starting my own company, meeting new people, salsa dancing, nature, reading and podcasts, discovering new music, weightlifting, etc.

EDUCATION

Bachelor of Science in Integrated Design Engineering | May 2023 | GPA: 4.0
Emphasis in Electrical Engineering, Minors in Chemistry & Economics
University of Colorado Boulder, Boulder, CO
Dual Enrollment | Community College of Denver | 2018-19 | GPA: 4.0
High School Diploma | East High School, Denver | 2015-19 | GPA: 5.140, Rank: 6 of 602

WORK & LEADERSHIP

mPOWER SYSTEMS ARCHITECTURE INDEPENDENT CONTRACTOR/INTERN, REMOTE
Aug 2022 - Present; May - Aug 2022 | SES | Luxembourg
- In under 2 mos., independently designed, coded and released a GUI (in self-taught Python) that visualizes satellite and contractual constraints for stakeholders in 5 departments to assist with system engineering and asset management. Program already in use by system engineers & saving labor hours. Currently designing 2.0 and self-teaching Django.
- In under 2 mos., independently designed and coded Python GUI that allows regulatory and spectrum teams to visualize international spacecraft regulations and strategize better for frequency use. Currently developing database w/ Docker, PostgreSQL, and Azure.
- Work w/ engineers located on the East Coast, Europe, Australia, and South America.

UNDERGRADUATE RESEARCH ASSISTANT, HYBRID MODE
Nov. 2020 - April 2022 | Laboratory for Atmospheric & Space Physics | Boulder, Colorado
- Designed, ordered, hand-assembled, and tested a printed circuit board for use on a NASA-funded flight spacecraft (AEPEX), self-teaching Altium and collaborating with engineers to design mechanical/electrical interfaces & ensure signal/power integrity.
- Created housing & documentation for the electrical testing set-up/non-flight model.
- Constructed scale model of the spacecraft, resulting in a complete bus redesign.
- Designed, constructed, & tested over 40 custom harnesses w/ NASA techniques.

TEAM LEAD - ENGINEERING PROJECTS COURSE
Jan. 2021 - May. 2021; Spring 2022| University of Colorado, Boulder
- **Trellis:** CEO of an IOT plant care start-up that won 1st place - people's choice - out of 62 teams. Wifi-enabled sensors provide users with custom plant support via a cross-platform mobile dashboard (React Native). Sensors store data with our back-end API & cloud (Golang). Built embedded hardware/PCB.
- Taught peers & delegated/liaised between 2 subteams. Coordinated/supported 7-member team; lead pitches, business dev., IP research, etc.
- Surveyed over 200 people and interviewed dozens of clients. Cleaned data, and analyzed it for project parameters, needs, and demographics to guide product design.
- **The REMote:** Led team in prototyping a remotely operated bilateral stimulation system for use by a trauma therapist. Received investment offers in final product, which was comparable to & cheaper than market alternatives by hundreds of dollars.

ENGINEERING SUPPORT STUDENT
Jan. 2020 - Nov 2020 | Integrated Teaching & Learning Program, University of Colorado, Boulder
- Conducted EAGLE (printed circuit board design) and laser cutting workshops.
- Assisted students with projects, providing technical support expertise, especially in Arduino, laser cutting, electronics, circuit design, CAD, 3D printing, & soldering.

INVOLVEMENT

FOUNDER & CO-PRESIDENT
Jun. 2020 - Aug 2021 | The Socioeconomic Justice Society | University of Colorado, Boulder
- Advocated for policies that dismantle the racial wealth gap through education, legislative advocacy, and partnerships w/ other organizations. Lead prison pen pal project of over 45 pairs of university students & maximum security prisoners.

SENIOR ANALYST; CONSULTANT
Feb. 2020 - Dec 2021 | Leeds Consulting Group | Leeds School of Business | U.C. Boulder