EMILY HARRISON

ehemilyharrison@gmail.com || 720.402.1211 || Washington, DC

Intellectually-curious and motivated young professional seeking customer-facing engineering role (product, CSM, solutions engineering, etc.). Enjoys working with diverse stakeholders to develop and identify tools and processes that make their lives easier. Thrives in cross-functional arenas.

KEY STRENGTHS

Product development
Innovative problem-solving
Stakeholder engagement
Leadership
Information synthesis & translation

TECHNICAL SKILLS

PROGRAMMING
(Python, Angular, TypeScript, Postgres, Linux, Dockerr, etc.)
Feature design & implementation.
Process automation & optimization.
Scripting, testing, rapid prototyping.
Web development, API development.

NON-PROGRAMMING
Data mgmt., collection, analytics.
Cross-functional requirement translation. PCB design. CAD.

RELEVANT COURSEWORK

Engineering Projects I, II, & III
Science Writing
Public Speaking
Interpersonal Communications
Data Analysis for Engineers
Applied Econometrics

LANGUAGES

Spanish - Bilingual, C1
Azerbaijani - Beginner (learning), A1

STUDIES ABROAD

Madrid, Spain - Fall 2021
Chengdu, China - Summer 2019

THE FUN STUFF

Outdoors lover
Long-time piano player (~20 yrs)
Avid traveler
Event planner
Cook
Amateur DJ (DJ Twi)

EDUCATION

Bachelor of Science in Integrated Design Engineering | May 2023 | GPA: 4.0
Emphasis in Electrical Engineering, Minor in Economics
University of Colorado Boulder, Boulder, CO
Honors: Summa Cum Laude, Chancellor's Recognition Award (1 of ~60 in undergraduate class), Silver Medal Award Nominee (College of Engineering), Dean's List every semester

WORK & LEADERSHIP

JUNIOR SOFTWARE ENGINEER, HYBRID
Aug 2023 - present | SES | Washington, DC

- Implement a variety of features & bug-fixes for our software-defined satellites' service provisioning & management automation as an individual contributor. Recently, implement gateway automatic power uplink control (AUPC) modules (dynamic power adjustment), create configuration parameters, adjust system models.
- Designed and implemented backend for regulatory compliance module for the on-board service-provisioning automation, including database design & development, API creation, model & interface development, bulk data import & export methods.
- Collaborated with legal teams to gather, analyze, and translate global NGSO regulatory data into usable engineering data & models, encompassing diverse and evolving governmental constraints across various sectors and geographic regions.
- Created initial design & prototypes for regulatory data management web tool. Collaborated with attorneys to make sure the tool is "lawyer-friendly."
- Develop and maintain polygon generation tool that transforms open-source GIS data, facilitating diverse applications like regulatory zoning and service provisioning.

TEAM LEAD - ENGINEERING PROJECTS COURSE
Jan. 2021 - May. 2021; Spring 2022| University of Colorado, Boulder

- **Medtronic Sonicision:** For 1 year, led a 6-person electrical engineering team to win most-challenging project in department, through modifications to a tissue dissection tool. We enabled data & tracking using "novel" signal (UHF) technology - for device research & inventory tracking. Liaised w/ Medtronic customer, led pitches, & presentations. Designed mechanical housing, assisted w/ PCB design & assembly.
- **Trellis:** CEO of an IOT plant care startup, winning 1st place (People's Choice) among 62 teams. Coordinated 7-person team. Conducted business development, intellectual property research, & consumer data analysis to guide product design. Led pitches and presentations. Surveyed >200 people, gathering project parameters & client needs.
- **The REMote:** Led team in prototyping a remotely-operated bilateral stimulation system for use by a trauma therapist. Received investment offers; product was comparable to & cheaper than market alternatives by hundreds of dollars.

mPOWER SYSTEMS ARCHITECTURE INDEPENDENT CONTRACTOR/INTERN, REMOTE
Aug 2022 - Aug 2023; May - Aug 2022 | SES

- In 2 months, independently designed, coded & distributed several iterations of a python tool that visualizes constellation capabilities & service constraints. Tool now -level service provisioning.

UNDERGRAD RESEARCH ASSISTANT, SYSTEMS & ELECTRICAL ENGINEER, HYBRID
Nov. 2020 - April 2022 | Laboratory for Atmospheric & Space Physics | Boulder, Colorado

- Designed, ordered, assembled, & tested two cubesat test set-ups (electrical flat-sat and 3D mechanical model) that exposed major design problems & led to bus redesign.
- Designed, assembled, and tested PCB for NASA cube-satellite AEPEX, integrating interfaces and ensuring signal integrity. Built NASA-standard hardware.