EMILY Q HUANG

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EDUCATION

University of California - San Diego

Spring 2025

B.S., Mechanical Engineering & Minor in Cognitive Science

San Diego, CA

• Honors: Jacob's School of Engineering IDEA Scholar/Dean's Scholar of Excellence, Nordson BUILDS Scholar

TECHNICAL

Bloom Energy

Jun. 2024 - Present

New Product Introduction (Mechanical) Intern

San Jose CA

- Worked on door-closing mechanism for power modules that reduces material costs by 42% (further reduced when service, hardware, etc... are accounted for)
- Conducted design reviews taking product development to manufacturing via prototyping, design/verification builds, and various documentation tasks (work instructions, BOM, DFM, FAIR/qualifications, and more)

UC San Diego Bioinspired Robotics and Design Lab (Soft Robotics)

Sep. 2022 - Present

Researcher (GEAR - Guided Engineering Apprenticeship in Research program)

San Diego, CA

- Design and build Volumetric Flow Devices to enhance soft robotic movement for master & PhD projects
- Presented at UCSD's 2023 GEAR Symposium and 2024 Undergraduate Research Conference
- Releasing documentation with BOM, CAD files, assembly instructions, wiring, PCB design, and Arduino files
- Completed an 11-page technical paper on differential pressure actuation (closed system)

City and County of San Francisco: Department of Public Works

Jul. 2023 - Sept. 2023 & Dec. 2023

Mechanical Engineering Intern (Infrastructure Design and Construction Div.)

San Francisco, CA

- Designed HVAC/plumbing routes on Revit & AutoCAD, integrated directly into construction blueprints/CD
- Collaborated with cross-functional engineering teams for 95% milestone CD set for SF Public Health Center
- Identified power requirements to maintain mechanical/plumbing equipment schedules for the electrical team
- Calculated vital data for equipment selection/QAQC, ventilation loads (heat/cooling), domestic water pipe sizing, static pressure, optimal differential pressure sensor placement, and updated building specifications

CCSF: Department of Technology

Jun. 2022 - Aug. 2022

Computer and Network System Intern (Public Safety Division)

San Francisco, CA

- Assisted the fiber-to-housing project installing free high-speed internet for 700+ low-income city residents
- Supervised city network of radios, routers, switches, antennas/wireless access points using UniFi Controller
- Fluently troubleshot internet issues, router set-up, and Wi-Fi activation services in English and Chinese
- Worked closely on wiring systems in-unit, electrical rooms, and newly constructed buildings

LEADERSHIP

Society of Asian Scientists and Engineers at UCSD

Oct. 2022 - Present

 $Head\ of\ Departmental\ Relations\ \&\ Previously\ Internal\ Vice\ President\ Intern$

San Diego, CA

- Doubled member attendance by leading professional development workshops enhancing organizational growth
- Coordinated 23' West Regional Conference: sold 250 tickets, held 15 workshops, & achieved \$11k net profit
- Established strong relationships with faculty advisors, industry reps, UCSD clubs (IEEE, NSBE, SHPE, WIC), and local restaurants for event collaborations

SKILLS

Languages: English (Fluent), Toishanese/Taishanese (Native), and Cantonese (Native)

Software: Agile, MATLAB, JavaScript/Java, Python, Video Editing, Microsoft Office/Gsuite/Mail Merge Technical: Proficient in CAD (Fushion360, Revit, AutoCAD, Onshape, SketchUp, SolidWorks), PCB design, 3D-Printing (Prusa/Ultimaker/Bambu), Soldering, Laser Cutting, Cable-Work, & Power Tools/Machine Shop Other: Proficient in Canva, Inkscape, Photography, Hand & Digital Illustration, Hand-Drafting (Architecture)