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EDUCATION

University of California, Berkeley

- B.S. Mechanical Engineering, GPA 3.6
- Awards: The Gates Scholarship '22, Hispanic Scholarship Fund Scholar '22, '23

ENGINEERING EXPERIENCE

Space Enterprise at Berkeley, Propulsion & Manufacturing Team Member

- Designed and manufactured custom PCB enclosures using 3D printing for propulsion systems.
- Developed a temperature monitoring system using Arduino and TMP36 sensors to collect heat data during propulsion tests.
- Designed and machined stainless steel capfill rods that improved gaseous nitrous measurement by 20% •
- Machined various propulsion and rocket structure components with a waterjet cutter to ensure precision and accuracy **Integrated Procurement Technologies,** *Quality Inspector* June 2023 - August 2023
 - Performed comprehensive visual inspections of materials and components, including military and OEM parts, ensuring compliance with AS9120 regulations.
 - Addressed Quality Assurance issues such as paperwork discrepancies and component defects for orders exceeding \$500,000 by coordinating with manufacturing partners.
- Enhanced existing quality assurance processes, resulting in a 15% reduction in issue resolution and order completion • PROJECTS

Smart Bicycle IoT Integration Project

- Utilized IoT to integrate incline driven gear shifter, OLED UI, and automatic locking mechanism
- Used MicroPython to control the gear shifter based off incline angle data measurement from LSM6DS0 accelerometer
- Designed and 3D-Printed locking mechanism that converted rotational movement from DC motor to linear movement • via a lead screw
- Used SMTP to notify the user when the bike was locked and unlocked via email •
- Obtained and displayed on an OLED Screen which city the user is in by using a GPS Module via satellite coordinates

DIY 3D Binder Jet Printer for Composites

- Machined and built frame of the printer using laser and water jet cutter.
- Designed and 3D Printed the Gantry system and mounts
- Successfully manufactured structures made from sand powder and water as the binder

3D-Printed Wind Turbine Project

- Conducted multiple static FEA analysis to optimize the tower structure, reducing deflection by 20% near the motor • housing compartment.
- Iterated turbine blade design through 3 prototypes to maximize lift and overall performance.
- Organized and led group meetings, facilitating discussions and ensuring project milestones were met on schedule.

LEADERSHIP EXPERIENCE

Mission Scholars, Member & Volunteer

- Served as a recurring panelist, sharing personal experiences and providing guidance to first-generation students, helping foster donor relationships and supporting college preparation efforts.
- Volunteered at workshops focused on college budgeting, professional communication, networking, personal finance, and scholarship acquisition.s

HSF Youth Leadership Institute, HSF Scholar

- Selected for a competitive leadership program for Latino high school students, which enhanced leadership skills through college and career workshops.
- Built a professional network by interacting with mentors, including college students and industry professionals, gaining valuable insights for academic and career success.

SKILLS AND INTERESTS

Technical Skills: SolidWorks, GD&T, MATLAB, Python, Arduino, IoT, Machine Shop Trained Language: Spanish & English (Native Reading & Writing) Interests: Manufacturing, Robotics, Anything Space Related

January 2024 - Present

Berkeley, CA ♦ Expected Graduation May 2026

November - December 2024

February 2025 - May 2025

October 2022- December. 2022

December 2020 - Present

July 2021