Eyan Documet

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Mechanical engineer with a strong foundation in manufacturing, simulation, additive manufacturing, and mechatronics. Skilled in CAD, prototyping, and robotics hardware integration. Seeking a rotational or full-time role in robotic systems, advanced manufacturing, or R&D to apply hands-on engineering expertise and drive innovation.

EDUCATION

University of California, Berkeley, B.S. in Mechanical Engineering - 3.72 GPA   Dec 2025
- **Relevant Courses:** Manufacturing and Design Communication, Simulation of Advanced Manufacturing Processes, Robotic Locomotion, Mechatronics Design

EXPERIENCE

Engineering Intern, Lawrence Berkeley National Laboratory - Berkeley, CA   Jun 2025 - Aug 2025
- Led R&D of a novel accelerator prototype, independently managing project timeline, milestones, and execution.
- Promoted, created, and revised 30+ part and assembly models in Creo Parametric, ensuring accurate documentation and lifecycle control using Windchill PLM.
- Independently repaired a specialized experimental setup to perform advanced materials testing.
- Performed thorough documentation of multiple project subsystems, improving sustainability and reducing technical debt.

Rear Suspension Engineer, UC Berkeley Solar Vehicle Team - Berkeley, CA   Feb 2025 - Dec 2025
- Created CAD models and manufacturing plans for an aluminum and carbon-fiber suspension for a three-wheeled racing vehicle.
- Led the transition from conventional design techniques to automated topology optimization and manufacturing-focused design, which halved part-count and reduced weight.
- Participated in design reviews with team leads and project managers, providing technical input that refined designs and ensured alignment with project objectives and timelines.

MESA Tutor, College of the Canyons - Valencia, CA   Apr 2022 - Jun 2023
- Delivered targeted instruction across multiple STEM subjects, enhancing comprehension for over 50 students per semester.
- Led official biweekly review sessions, boosting student exam scores by 15% on average through focused concept reinforcement.

PROJECTS

Robotic Fire Suppression System - 2.5-DoF robotic platform for autonomous fire detection, prevention, and suppression in hazardous and remote environments.
- Designed frame in Fusion 360 from reverse-engineered COTS parts; implemented fire suppression using Arduino with Adafruit IR sensors and finite state machine control.

Throwable-Wearable Personal Security Alarm - A 3D printed personal security device worn around the neck and thrown at potential threats.
- Selected electronics, designed enclosure in SolidWorks, and produced drawings emphasizing manufacturability.

SKILLS

Engineering Software: SolidWorks, Creo Parametric, Fusion 360, Windchill PLM, ANSYS, Simulink

Physics and Modeling: Kinematics, Dynamics, Control Systems, Motion Planning, Simulation

Programming Languages: Python, MATLAB, C/C++ (Arduino), LabVIEW, LaTeX

Mechanical Design: GD&T, DFM/DFA, FEA, Tolerance Stack-Up, Reverse Engineering, Material Selection

Embedded Systems: Microcontrollers (Arduino, ESP32), Sensor Integration

Tools and Platforms: Git, Raspberry Pi, 3D Printing (FDM, SLA, MJF), Windchill PLM, ROS