Eyan Documet

eyan.documet@pm.me | (310) 480-5366 | /in/eyandocumet | eyandocumet.xyz

Mechanical Engineer with expertise in additive manufacturing, mechatronics, mechanical design, and materials; seeking an internship or full-time position in robotics or manufacturing.

EDUCATION

University of California, Berkeley – B.S. in Mechanical Engineering | 3.72 GPA Dec 2025

- **Relevant Coursework:** Manufacturing & Design Communication, Simulation of Advanced Manufacturing Processes, Robotic Locomotion, Mechatronics Design, Finite Element Methods

EXPERIENCE

Rear Suspension Engineer, UC Berkeley Solar Vehicle Team – Berkeley, CA Feb 2022 – Present

- Developed a detailed manufacturing plan for a multi-component aluminum and carbon-fiber race car suspension, incorporating 4-axis CNC milling, material selection, and assembly sequencing.
- Led the transition from conventional design techniques to automated topology optimization, as well as a transition from aluminum to carbon fiber for structural components, halving part-count and reducing 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.

Vice President, College of the Canyons Chemistry Club – Valencia, CA Feb 2023 - Jun 2023

- Developed and executed original experimental designs, ensuring safety and educational value for both public demonstrations and club meetings.
- Led discussions on experimental results, effectively communicating complex chemical concepts to club members.
- Managed procurement of chemicals, equipment, and safety materials for performing demonstrations in novel environments.

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 biweekly review sessions in concert with course faculty, boosting student exam scores by 15% through focused concept reinforcement.
- Developed personalized study plans and guided students through problem sets, cultivating advanced problem-solving skills and intuition.

PROJECTS

"πRo-BOT" Autonomous Fire Suppression System – 2.5-DoF robotic platform for autonomous fire detection, prevention, and suppression in hazardous and remote environments.

- Designed and manufactured articulated mechanical linkage with custom 3D-printed and off-the-shelf components.
- Validated tolerances via digital twinning and reverse engineering.
- Developed cheap thermal-based computer vision algorithm to automate target detection and aiming.

"Safety Grenade" Wearable Security Device – Pin-activated, wearable/throwable alarm system for emergency signaling in hostile or unsafe scenarios.

SKILLS

- **CAD & Simulation:** SolidWorks, Fusion, AutoCAD, Simulink, Blender
- **Prototyping & Manufacturing:** GD&T, MDFM, Reverse-Engineering, FDM/SLA Printing, CNC Manufacturing, Assembly, Tolerance Stacking, Design Reviews
- **Analysis:** FEA/FEM, Numerical Linear Algebra, Control Systems, Mechanisms and Linkages
- **Programming:** Web Development, Python, MATLAB, C/C++, Java, LaTeX