Eyan Documet

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Mechanical Engineering student well-versed in mechatronics, energy and electrical systems, programming, simulation, prototyping, and manufacturing. Proven leader and collaborator. Eager to contribute to impactful technologies.

EDUCATION

University of California, Berkeley — Berkeley, California
Bachelor's of Science in Mechanical Engineering (GPA: 3.31) — Fall 2025

College of the Canyons — Valencia, California
Associate of Science for Transfer in Physics & Mathematics (GPA: 3.88) — Spring 2023

EXPERIENCE

College of the Canyons — Valencia, California
MESA Tutor — April 2022 - May 2023

- Delivered targeted instruction in various subjects including Calculus, Linear Algebra, Differential Equations, Physics, Engineering Mechanics, Chemistry, and more.
- Led biweekly review sessions, improving student understanding of core concepts, resulting in measurable academic improvement.
- Worked directly with students 1-on-1 to develop individualized study plans, work through problem sets, and cultivate high-level intuition.

College of the Canyons Chemistry Club — Valencia, California
Vice President — February 2023 - June 2023

- Co-led the development and execution of experimental designs in concert with college faculty to ensure safe and educational demonstrations.
- Communicated and discussed implications of experimental results with a body of 20+ club members.
- Managed the procurement of chemicals, equipment, and safety materials while optimizing cost.
- Organized and presented live scientific demonstrations at public events, simplifying complex chemical principles for a general audience.

PROJECTS AND ORGANIZATIONS

- **CalSol (Rear Suspension Team).** Design of rear one-wheeled suspension for solar-powered race car. Incorporated FEM analysis to validate structural integrity and minimize weight while maintaining durability for competitive and dynamic racing conditions.
- **πRoBot (Mechanical and Design Lead).** 3DoF robotic fire-suppression system for detection, prevention, and suppression. Focused on portability, modularity, and autonomous operation in hazardous/remote environments.
- **MATLAB Finite Element Solver.** MATLAB-based FEM solver programmed from scratch for structural and thermal analysis.
- **"Safety Grenade" Wearable Security Device (Manufacturing and Tolerancing Lead).** A pin-activated wearable and throw-able alarm system designed for emergency communication.

TECHNICAL SKILLS

- **CAD/3D Design/Simulation:** Solidworks, Fusion360, Simulink, Blender
- **Engineering & Manufacturing:** Prototyping, Circuit Design, Arduino & ESP32, Soldering, Additive and Subtractive Manufacturing, CNC
- **Mathematics & Analysis:** Finite Element Analysis, Control Theory, Dynamics
- **Programming Languages:** Python, MATLAB, C, C++, Java, LaTeX