

# Eyan Documet

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## OBJECTIVE

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BSME graduate oriented towards applied research and early-stage product development, with hands-on experience in validation, design, prototyping, and hardware integration; seeking a full-time mechanical engineering role in design, testing, or research and development.

## EDUCATION

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**University of California, Berkeley**, B.S. in Mechanical Engineering - 3.47 GPA Dec 2025  
**College of the Canyons**, A.S. in Physics and Mathematics - 3.88 GPA May 2023

## EXPERIENCE

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**Engineering Intern**, Lawrence Berkeley National Laboratory - Berkeley, CA Jun 2025 - Present

- Led R&D efforts for a light and low-cost accelerator prototype, managing timelines, thorough project documentation, and testing.
- Refurbished unique experimental setup required for advanced materials characterization, allowing for component selection and integration.
- Developed new software tools for devising permanent magnet schemes to correct out measured harmonic errors.

**MESA Tutor**, College of the Canyons - Valencia, CA Apr 2022 - Jun 2023

- Delivered individualized, small group instruction for lower-division physics and mathematics courses, improving course competency for over 50 students per semester.

## PROJECTS

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**Inchworm Robot** Aug 2025 – Dec 2025

- Designed and simulated motion planning for an inchworm-inspired 2-link robotic climber.
- Developed finite-state architecture, circuit design, and comprehensive Bill of Materials.

**Gyroid Optimization Experiment** Aug 2025 – Dec 2025

- Designed and executed a full-factorial mechanical testing study on 3D-printed gyroid structures, varying geometric isovalue and cell density to quantify energy absorption.
- Scripted data-analysis workflows to process strain-load CSVs, compute energy metrics, and perform statistical modeling to identify geometry-dependent performance trends.

**Robotic Fire Suppression System** Feb 2025 – Jun 2025

- Designed 3D-printable components to create the kinematic chain for a 2.5 DoF robotic arm, integrating an off-the-shelf electronic water gun mechanism into custom-built robotic components.
- Developed low-level computer vision and motion algorithm for heat-source sensing and localization, enabling deployment on lightweight edge hardware.

**UC Berkeley Solar Vehicle Team (Rear Suspension)** Feb 2025 - Jun 2025

- Contributed to the suspension design for the Gen XI CalSol race car, performing numerical analysis, topology optimization and DFMA efforts, halving part count and reducing weight.

## LEADERSHIP AND VOLUNTEERING

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**Reader, ME154: Thermophysics for Applications**, UC Berkeley - Berkeley, CA Aug 2025 - Dec 2025

**Volunteer Camp Counselor**, Santa Monica Family YMCA - Santa Monica, CA July 2015 - Present

## SKILLS

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**Engineering Software:** Creo Parametric, Autodesk Fusion, ANSYS, Windchill PLM

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

**Mechanical Design:** GD&T, DFMA, FEA, Reverse Engineering, Advanced Manufacturing

**Tools and Platforms:** Git, Raspberry Pi, 3D Printing (FDM, SLA, MJF), Microcontrollers (Arduino, ESP32)