

# M I C A H H S U

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## EDUCATION

### University of California, Berkeley

BS, Mechanical Engineering, Expected Spring 2026

- ◆ GPA: 3.90 ♦ Regents' and Chancellor's Scholar (top 2% of admitted students)

### Saddleback College

AS, Physics, 4.0 GPA with Honors Program

### Berkeley, California

June 2024 – Present

### Mission Viejo, California

August 2022 – May 2024

## PROFESSIONAL EXPERIENCE

### Epirus

Mechanical Engineering Intern

### Torrance, California

June 2025 – August 2025

- ◆ Designed and built a motor test bench that replicates 10 Nm loads for critical verification of control software.
- ◆ Drafted reduced-dimension engineering drawings with G D&T for custom steel and aluminum parts.
- ◆ Designed, analyzed, and built a test stand for a 400 lb outboard motor, and a rain simulator for water leak testing.
- ◆ Assisted in assembly and machining modifications during the first build of second-generation flagship product.

### Applied Medical

Automation Engineering Intern

### Rancho Santa Margarita, California

June 2024 – August 2024

- ◆ Designed a sorting and offloading mechanism with a 300 ms cycle time for an automated clip-forming machine.
- ◆ Developed semi-custom camera software on Ubuntu for machine monitoring and troubleshooting.
- ◆ Designed a portable hardware unit for the software, allowing rapid setup of a machine monitoring system.
- ◆ Programmed a pilot-phase PLC to control motors in coordinated motion at 20% the cost of existing solutions.

### Hexagon Manufacturing Intelligence

Applications Engineering Intern

### Irvine, California

June 2023 – August 2023

- ◆ Laser scanned and reverse engineered 5 extrusion dies, each up to 650 lb and 32" in diameter.
- ◆ Wrote a CMM program demonstrating fully automatic inspection of GD&T callouts in a CAD model's PMI.
- ◆ Co-taught certification courses of up to 6 customers on quality inspection with CMMs.

## EXTRACURRICULAR EXPERIENCE

### Space Enterprise at Berkeley

Propulsion Team Member

### Berkeley, California

September 2024 – June 2025

- ◆ Designed, built, and fielded a thrust transfer structure and ignitor fixture for a rocket motor static fire.
- ◆ Constructed a reusable split-mold for laying up identical 6" carbon fiber nosecones.
- ◆ Designed the lower subtube bulkhead housing recovery system cameras for an 8" rocket.

### Saddleback College Robotics

Mechanical Team Lead

### Mission Viejo, California

July 2023 – June 2024

- ◆ Led design, manufacturing, and assembly of a 50 kg, 1.2 cubic-meter Mars rover.
- ◆ Managed timeline, task delegation, CAD standardization, and PDM system for a sub-team of 8 members.
- ◆ Spearheaded full development of a 6-DOF robotic arm with custom cycloidal gearboxes and 42" of reach.
- ◆ Selected and integrated electronics for the arm, including 24V brushless motors, drivers, encoders, and cameras.

Mechanical Team Member

August 2022 – June 2023

- ◆ Designed, manufactured, and wired a 5-DOF robotic arm, capable of lifting payloads up to 22 lb.
- ◆ Developed a novel end effector with a lead screw powertrain, compliant grippers, and built-in hex key.
- ◆ Engineered and constructed a collapsible lowering platform mechanism housing an in-situ geology experiment.

### FIRST Robotics Competition, Team 3476: Code Orange

### Irvine, California

CAD Team Member, Pit Crew Member

August 2021 – June 2023

- ◆ Prototyped, designed, and built a ball-control "hopper" and a telescoping arm that extends up to 19" in 0.5s.
- ◆ Collaborated on a 6-man pit crew at competitions to perform critical robot repairs under intense time pressure.

## SKILLS & INTERESTS

- ◆ **Manufacturing:** Mill, Lathe, CNC Router, FDM 3D Printing, CMM, General Machining.
- ◆ **Software:** SolidWorks (Certified Professional), NX (Design Associate), Design X, Fusion 360, C++, MATLAB, FEA.
- ◆ **General:** Electromechanical Design, GD&T, Drafting, Reverse Engineering, Metrology.
- ◆ **Hobbies:** A Cappella, Rock Climbing, Piano, Guitar, Martial Arts, Philosophy, Reading, Travelling.