

Amisha Chandra

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Portfolio Link: <https://tinyurl.com/amishacportfolio>

EDUCATION

University of California Berkeley: B.S. *Mechanical Engineering* | GPA: 3.5

Dec 2027

TECHNICAL SKILLS

Software: MATLAB | AutoCAD | Fusion | Onshape | SolidWorks | Siemens NX | Microsoft Excel/Powerpoint | C/C++ | Python | FEA | ANSYS

Hardware: CNC Mill/Router | FDM/SLS Printing | Laser Cutting | PCB Design | GD&T | Injection Molding | DFMEA/PFMEA

INTERSHIPS

Apple - *Camera Hardware Engineering*, Cupertino, CA

Jun 2026 - Aug 2026

- Developed Python pipeline to benchmark iPhone camera modules against dSLR cameras on image sharpness (SFR) across aperture conditions, enabling cross-comparison of non-native camera systems.
- Designed test fixture in Siemens NX to characterize co-ex interactions between camera modules; led manufacturing via PolyJet 3D printing and CNC machining
- Built test infrastructure to evaluate magnetic module co-ex, measuring nodal force and sensor offset across operating conditions to validate team simulations

Safe Sentinel - *Robotics Engineer*, San Francisco, CA

Nov 2025 - May 2026

- Developed automated packaging robots, training xArm and YAM robotic arms and designing a mobile base with custom mechanical structures for RealSense camera-based object tracking.
- Leveraged human-teleoperated and VR-captured motion data with Vive Base tracking to improve arm motion accuracy and repeatability.

Enano Technologies - *Mechanical Engineer Intern*, Berkeley, CA

Jun 2025 - Dec 2025

- Led end-to-end design of a micro BLE asset tracker enclosure, utilizing SimScale to analyze static/adhesive loads. Prototyped with FDM/SLA printing and biodegradable material alternatives, considering manufacturability and mechanical performance.

Malin Space Science Systems - *Mechanical Engineer Intern*, San Diego, CA

Jun 2025 - Aug 2025

- Designed, manufactured, and assembled test structures to characterize a mechanical shutter across voltage and thermal conditions for NASA's DAVINCI mission.
- Developed automated Python-based test workflows for waveform generator calibration, data acquisition, and validation to support repeatable performance testing.
- Researched and evaluated actuator concepts for in-flight focus adjustment, focusing on mechanical feasibility, thermal behavior, and integration constraints.

The Boeing Company - *Maintenance Programs Engineer Intern*, Seal Beach, CA

Jun 2022 - Aug 2022

- Outlined discrepancies for the 747-Lufthansa aircraft. Analyzed faults in airframes using Eddy-Current machines and evaluated durability of fuselage parts.

UNIVERSITY EXPERIENCE

Formula Electric at Berkeley (FSAE EV) - *Battery Accumulator Mech Engineer*, Berkeley, CA

Jan 2026 - Present

- Designed FSAE EV accumulator mechanical layout and sized copper busbars through current and thermal analysis to ensure rule compliance and safe operation.

Theoretical & Applied Fluid Dynamics Lab - *Sailboat Drones Engineering Researcher*, Berkeley, CA

Aug 2025 - Dec 2025

- Designed wind energy harvesting systems to power long-duration autonomous sailboat drones. Fabricated mechanical components through 3D printing/post-processing to ensure marine durability and deployed at Marina for field testing.

Engineering Solutions at Berkeley - *Senior Engineering Consultant*, Berkeley, CA

Aug 2024 - Present

- Contributes to R & D, manufacturing, assembly, and documentation of electromechanical projects from industry clients to propose solutions, proof of concept designs, and physical prototypes to engineering problem statements.

ENGINEERING PROJECTS

Mechanized Elbow Rehabilitation Device

Nov 2025 - Dec 2025

- Designed a modular, low-cost elbow rehabilitation device for physical therapy using finger flex sensor inputs and two ESP32s for patient/therapist modes. Implemented signal filtering and PWM servo control with safety features and visual feedback.

Sanisure - *Engineering Solutions at Berkeley Consultant*

Sept 2025 - Dec 2025

- Led transition from ultrasonic to laser welding for bioprocessing assemblies, evaluating tooling and manufacturing feasibility. Performed DFMEA to identify process risks and Ansys thermal simulations to assess deformation and bonding quality.

Muon Space - *Engineering Solutions at Berkeley Consultant*

Jan 2025 - May 2025

- Developed electromechanical turnover dolly for XL satellites. Designed gearbox in Solidworks, providing 2 axes of rotation. Completed hand calcs/FEA analysis to validate high torque load capacity, applying GD&T for tolerance requirements.

Rapid Robotics - *Engineering Solutions at Berkeley Consultant*

Oct 2024 - Dec 2024

- Designed a modular 3D scanning unit to develop high resolution 3D models utilizing iPhone 13-Pro's LiDAR scanner.
- Built arched arm pulley structure along with 3D-printed/laser-cut components to house iPhone, ring light, and turntable. Design was showcased by the CEO to demonstrate Rapid Robotics' LiDAR scanning software to potential investors.