

Andrew Pasco

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Education

Stanford University

MS Candidate in Mechanical Engineering

Key Courses: Robot Perception, Principles of Robot Autonomy, Deep Learning

Stanford, CA

Sep 2025 - Mar 2027

University of Cambridge

MPhil in Industrial Systems, Manufacture, and Management

Thesis: "Exploring Smartphone-Enabled Gesture Input for Intuitive Robot Teleoperation"

Cambridge, UK

Oct 2024 - Aug 2025

California Institute of Technology

BS in Mechanical Engineering (4.0 GPA) and BEM (4.0 GPA)

Key Courses: Robotics, Experimental Robotics, Robotic Systems, Data Analysis in Engineering, Engineering Design Laboratory, Dynamics, Design and Fabrication, Experiments and Modeling in Mechanical Engineering

Pasadena, CA

Sep 2020 - Jun 2024

Work Experience

Beta Technologies - Full Time Mechanical Engineering Intern

Jun - Sep 2021, '22, '23

- Designed housing assembly, manufacturing plan, and test plan to ensure integral torque-transferring component of proprietary motor can operate safely during a **specific motor failure mode**
- Developed set of **best practice guidelines** for transferring design data between Solidworks and CATIA/3DX
- Utilized Onshape, Solidworks, and CATIA CAD to design robust mounting platforms and housings for flight-essential electrical components, analyze and verify safety margins, and ensure proper documentation
- Ensured electric vertical takeoff/landing experimental aircraft (ALIA-250 SN02) received **FAA air-worthiness certificate** and registration to enable flight testing as a member of the flight-readiness engineering team
- Utilized mold design and layup skills for ALIA-250 SN02 carbon fiber/fiberglass fairings and panels

ISMM Industrial Projects - Student Research Consultant

Dec 2024 - Mar 2025

- Undertook four industry projects with companies in England and Wales, consulting on key issues relevant to each company by framing the problem, collecting/analyzing data, and developing recommendations
- Implemented **lean manufacturing principles** and a bespoke inventory management system for RAM Innovations, an embedded die packaging printed circuit board manufacturer
- Recommended R&D process improvements for an espresso-maker SME, **saving 5-11 days per iteration**
- Developed market-entry strategy and licensing model** for an early-stage materials science startup
- Solved line balancing and inventory management issues for Huhtamaki BCP, a large paper products company, enabling **projected annual savings of £400k** while lowering lead times by 5 days on average

Caltech Department of Mechanical Engineering - Teaching Assistant

Oct 2022 - Jun 2024

- Worked as a TA for 25-50 students in ME12abc, ME14, and ME72ab
- Led weekly office hour help sessions, graded problem sets and exams, and critiqued student design reviews

Leadership

Caltech NCAA DIII Men's Swimming and Diving Team - Captain

Sep 2020 - Jun 2024

- Led team to attain school's second national ranking (22nd) in Caltech history
- Organized study sessions contributing to **Highest Team GPA of all 490 NCAA Men's Swimming Programs**
- Created "team contract" to improve attendance by 10% and planned team dinners to improve team morale
- Achieved 400 Individual Medley and 200 Individual Medley **School Records**

Caltech Fleming House - President

Jan 2021 - Jun 2024

- Served on the **Interhouse Committee (IHC)** with eight other house presidents (representing 90% of the undergraduate population), developing strategies for continued success of the campus house system
- Oversaw allocation and use of \$30,000 annual budget and growth of house endowment
- Conveyed student concerns at monthly meetings with the Vice President for Student Affairs and the Undergraduate Deans while discussing issues such as COVID protocols and student-administration relations

References available upon request.