ALEXANDER MASSOUMI

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EDUCATION

University of California-Irvine, Irvine, CA — Expected Graduation 2027
- *B.S. Mechanical Engineering, B.S. Aerospace Engineering*
- *Information and Computer Science, Minor*
- Certified Solidworks Associate (Mechanical Design)

Saddleback College, Mission Viejo, CA — 06.2024-09.2024
- *Automotive Fundamentals Course*
- Automotive mechanics course covering modern vehicle operation, repair, tools, and diagnostics

PROJECTS

Curtiss JN-4 Biplane, *Fuselage Engineer*, Flying Leatherneck Aviation Museum — 03.2025 - present
- Collaborating to build a scale replica of the Curtiss JN-4 "Jenny" biplane, interpreting engineering drawings, analyzing structural components, and assisting in the fabrication and assembly of the fuselage.

Fixed-Wing Aircraft, *Fuselage Engineer*, Fixed-Wing Innovation Project — 01.2025 - present
- Collaborated in the design, 3D printing, and flight testing of a fixed-wing UAV for a multidisciplinary aerospace competition focused on additive manufacturing, flight performance optimization, and structural integrity.

Transit Bus Design: CAD Assembly & FEA Analysis, *Class Project*, MAE 52 — 09.2024 - 12.2024
- Created CAD model of a transit bus in Solidworks with motion and performed FEA analysis to find maximum loading.

FPV Drone, *Independent Project*, UAVs @ UCI — 10.2024 - present
- Conducted research on unmanned aerial vehicle (UAV) components and custom-built a first-person view (FPV) UAV. Learned FPV freestyle, honing advanced flight control techniques, in order to successfully pilot the UAV.

Autonomous Robot, *Class Project*, MAE 106 — 01.2024 - 03.2024
- Utilized Arduino programming in C, 3d printing, and laser cutting to construct an autonomous rover that used a piston as propulsion and ackerman steering system, with a magnetometer, limit switch, and solenoid in measurement assistance.

RC Rover, *Class Project*, Introduction to Engineering I — 09.2023 - 12.2023
- Built and designed a rover and its steering system using a servo motor to control the steering system and a receiver/transmitter to control the rover.

Website, *Independent Project,* anmassoumi.github.io — 03.2024 - present
- Using HTML and CSS, I designed and coded my website on VS Code to showcase my projects.

WORK EXPERIENCE | VOLUNTEER EXPERIENCE | LEADERSHIP EXPERIENCE

MD Anderson Cancer Center, *Radiation Oncology Research Intern*, Houston, TX — 03.2025 - 09.2025
- Working in the Department of GI Radiation Oncology to apply precision engineering and computational modeling techniques to support cancer research. Conducting data collection and analysis to inform data-driven decision making, developing experimental tools, and leveraging complex algorithms to enhance research accuracy.

MotoGP, *Track Marshal*, Circuit of the Americas, Austin, TX — 03.2025 - present
- Served as a track marshal for the 2025 MotoGP at the Circuit of the Americas through the Sports Car Club of America (SCCA) and MotorsportReg, supporting real-time race operations, rider safety, and incident response with teams in their pit-lane garage.

Sigma Gamma Tau, *National Aerospace Engineering Honor Society Member*, UC Irvine, CA — 10.2024 - present
- Inducted into Sigma Gamma Tau, the National Aerospace Engineering Honor Society, for academic excellence and leadership in the field of aerospace. Required to be top one-fifth of the sophomore class to be invited.

UC Irvine Parking and Transportation Services, *Anteater Express Operator*, Irvine, CA — 08.2024 - present
- Class B licensed Anteater Express bus driver. Responsible for the inspection and safe operation of shuttle service buses at UC Irvine. Responsible for the safety and well-being of 250+ passengers per shift.

Engineering Student Council, UC Irvine, CA — 10.2023 - present

Faculty Engagement Committee (10.2024 - present)
- Promote student-faculty interaction for the educational, social, and professional advancement of the engineering community at UCI. Create networking and research opportunities with other organizations, businesses, and faculty.

Galileo Camps, Irvine, CA — 06.2022 - 08.2024

Lead Instructor (06.2024 - 08.2024)
- Led STEM sessions for children, designing hands-on projects and lesson plans to enhance learning. Fostered an inclusive environment, inspiring creativity and curiosity in campers.

TECHNICAL SKILLS

- *Software:* SolidWorks, MATLAB, Arduino, CSS, HTML, Microsoft Office, Python
- *Hardware:* 3D Printing, Laser Cutting, Fabrication Machinery
- *Skills:* Machine Learning, Critical Thinker, Highly Motivated, Organized