

Megan Tseng

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Education

Massachusetts Institute of Technology, Cambridge, MA

Class of 2027

Bachelor of Science in Mechanical Engineering

GPA: 5.0/5.0

- Concentration in Controls, Instrumentation and Robotics

Bachelor of Science in Computer Science: Computation and Cognition

Relevant Coursework: Robotics, System Dynamics and Control, Thermal-Fluids Engineering, Mechanics, Circuits, Programming

Relevant Experience

Aerospace Controls Laboratory, MIT Department of Aeronautics and Astronautics

Undergraduate Researcher, Autonomous Control

Sep 2025 – Present

- Enhancing autonomous soaring capabilities to extend flight endurance of a fixed-wing unmanned aerial vehicle (UAV)
- Developing planning and model-predictive control algorithms for multiple flight states on a tiltrotor platform
- Performing system identification and implementation of agile flight for a hybrid vertical take-off and landing UAV

ASML | Wilton, CT

Mechatronics and Control Systems Engineer Intern

May – Aug 2025

- Created a novel technique for optimizing feedforward controllers on a semiconductor lithography machine reticle stage actuator using frequency response measurements
- Modelled the control system of a short-stroke actuator on a TWINSKAN EXE:5000 reticle stage in MATLAB and achieved precision within 0.1 nanometers of current ASML optimization techniques

MIT Motorsports

Controls Engineer, Software & Aerodynamics Teams

Sep 2023 – Present

- Modelling vehicle dynamics and developing control algorithms to maximize performance of a four-wheel-drive Formula SAE electric racecar
- Improving fidelity of a physics-based car simulation and quantifying control loop impact on lap times
- Previously: led the design and fabrication of the aerodynamics package's sidepods

Improbable AI Lab, MIT Computer Science and Artificial Intelligence Laboratory (CSAIL)

Undergraduate Researcher, Robotics Hardware

Sep 2024 – Jan 2025

- Developed miniaturized low-impedance actuators for improving compliance in a dexterous humanoid robotic hand
- Designed a catadioptric camera system to attain a wider field of view and enhance vision-based tactile sensing

Additional Experience

Biomechatronics Group, MIT Media Lab

Undergraduate Researcher, Machine Learning

Dec 2023 – Aug 2024

- Programmed a virtual model to improve proprioceptive feedback for controlling upper extremity prostheses
- Combined machine learning with various biophysical muscle models to convert electromyography (EMG) data of the residual limb to simulated kinematics of the amputated limb

Pison Technology, Inc. | Boston, MA

Research & Development Intern

May – Aug 2024

- Developed algorithms for processing neurophysiological signals like electrodermal activity via a biosensing wrist device

MIT Assistive Technology

Prosthetics & Braces Lead

Sep 2023 – May 2024

- Led the team in using CAD and FEA to improve stability of a carbon fiber ankle-foot brace

MIT Emergency Medical Services

EMT-B, Executive Officer

Aug 2023 – Present

- Responding to medical emergencies and providing patient care; serving as a teaching assistant for new EMT candidates

Skills

Programming: Python, MATLAB (with Simulink), C++

CAD: Solidworks, Siemens NX, Fusion360