

SETH ROBLES

Cambridge, MA

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Education

Massachusetts Institute of Technology (MIT) — GPA 4.9/5.0

Expected May 2027

BS in Mechanical Engineering, Minor in Computer Science

Cambridge, MA

- **Coursework:** Circuits, Signal Processing, Design and Manufacturing I, Intro to Robotics, Dynamics and Controls II
- **Extracurriculars:** MIT Admissions Ambassador, Orientation Leader, Associate Advisor, Zeta Psi Fraternity, Society of Hispanics Engineers, The Standard (Professional development group for men of color), Student Advisory Group for Engineers

Experience

Suction Tank Track Project

June 2025 – Aug. 2025

Mechanical Engineering Research Intern

Cambridge, MA

- Tested suction cup arrays to determine array strength-and-failure curves
- Designed and prototyped a tracked suction tank system for terrain-adaptive movement

AccessPoint

January 2025 – July 2025

Founder and Developer

Remote

- Created a centralized platform to connect BIPOC, LGBTQ+, and first-gen students with vetted scholarships and educational opportunities
- Built and maintained full-stack web app using Flask and PostgreSQL; integrated LangChain and Gemini APIs to enable AI-powered search
- Sunset the platform after testing revealed limited long-term impact, applying lessons to future ventures

MIT Olsen Lab Research

Feb. 2024 – Sep. 2024

Undergraduate Researcher

Cambridge, MA

- Designed machine parts around chemistry safety requirements while maintaining mechanical speed and precision required for ideal chemical solutions
- Modeled a functioning cyclone separator in Fusion CAD and set up simulations in Ansys CFD Software to create accurate models for future simulations

2.12 Robotics

Feb. 2025– Present

UR5 Team Lead

Cambridge, MA

- Led a team of 7 upper-level undergraduate and graduate students in using a UR5 for pick and place tasks with deformed plastic bottles
- Prototyped potential end effectors in solidworks before 3D printing them for testing
- Used PlatformIO with VSCode for computer vision, allowing for automation of pick and place tasks based on bottle colors

Skills

Languages: Spanish, Italian (Basic), ASL (Basic)

C.S. and Electronics: Python, Java, HTML, CSS, C++, Raspberry Pi, Arduino, ESP32, NodeJS, Electron

Modeling Software: Solidworks, Autodesk Fusion CAD, Ansys Fluent Flow CFD Modeling, KiCAD (Beginner)

Machining and Fabrication: Lathe, Mill, CNC Router, Laser cutting, Soldering, 3D Printing

Teaching and Leadership

Physics Instructor

Jan. 2025

Instructor

Pordenone, Italy

- Taught fundamental physics (mechanics, heat transfer, electricity, and magnetism) to students through interactive lessons and hands-on demonstrations
- Designed and implemented engaging problem-solving activities to reinforce key principles
- Adapted teaching methods to accommodate diverse learning styles in an international setting

Awards

Gates Scholar, Jack Kent Cooke Scholar, National Merit Scholar, Questbridge Scholar, Hispanic Scholarship Fund Scholar, Coolidge Senator, National Hispanic Recognition Scholar, Small Town Recognition Scholar, 3x AP Scholar with Distinction

Interests

Sports, Writing, Robotics and Automation, Wearable Technologies