

SERVANDO AVALOS

Cambridge, MA | Houston, TX

EDUCATION

Massachusetts Institute of Technology

Bachelor of Science in Mechanical Engineering

Cambridge, MA

May 2026 | GPA: 4.6/5.0

RELEVANT EXPERIENCE

KULR Technology

Summer 2024

Prototyping and Testing Engineering Intern

- Led the research and design of a BB-2590 lithium-ion battery pack on SolidWorks based on military standards using injection molding design techniques.
- Assisted with manufacturing and assembly processes for space and defense battery packs in a fast-paced startup environment.

MIT Arcturus Autonomous Robotics

July 2023 – Present

MechE Subteam / Media Lead

- Planning the strategic design of a watertight command module using OnShape to meet custom electrical requirements.
- Implemented strategic posts resulting in a 34% follower increase (200+ followers) on social media platforms.

MIT Laboratory for Aviation and the Environment

September 2023 – February 2024

Undergraduate Researcher

- Manufactured a single-stage thruster integral in advancing fixed-wing ionic aircraft propulsion research.
- Designed and prototyped enhanced components using SolidWorks, strategically addressing critical failure points in the thruster to improve overall structural reliability.

MIT Rocket Team

September 2022 – May 2023

Structures Subteam Member

- Fabricated ignitor-inserted bolts and a piston mount used in a successful two-stage rocket flight to 32,000 feet in strict adherence to CAD specifications.
- Created a model rocket for Level 1 High Power Rocketry certification from National Association of Rocketry.

RELEVANT COURSEWORK

Design and Manufacturing II (2.008)

Fall 2024

- Applying DFA and DFM principles to design and manufacture 100 injection molded yo-yos in a team of 5.

Design and Manufacturing I (2.007)

Spring 2024

- Individually designed and manufactured an aluminum robot to complete various tasks for a class competition, finishing in the top 32 of 147 students.

Mechanics and Materials I (2.001)

Fall 2023

- Problem solving for statically determinate and indeterminate systems in axial loading, torsion, and bending.

Others

- How to Design (4.021); Electronics for Mechanical Systems (2.678); Dynamics and Control I & II (2.003/4), Thermal-Fluids I (2.005)

SKILLS

Software: SolidWorks | Fusion 360 | Python | JavaScript | Arduino IDE | MATLAB | CAD | CAM

Hardware: 3D Printing - FDM & SLS | Mill | Lathe | Waterjet | CNC | Laser cutter

Other: Fluent in Spanish

AWARDS & RECOGNITIONS

Texas Petrochemicals Group Mark of Excellence Scholarship

March 2022-2024

Lockheed Martin MIT IACME Prize

December 2023

Blue Origin MIT IACME Prize

December 2022

Phi Beta Kappa Alumni Association of Greater Houston Scholarship

March 2022