

Gerardo Berlanga - Cambridge, MA | +1.803.431.1939 | gerardo@mit.edu

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA May 2025
S.B. in Mechanical Engineering, Minor in Physics 4.7 GPA
Coursework: Mechanics & Materials, Dynamics & Control, Thermal-Fluids Engineering,
Design & Manufacturing, Measurement & Instrumentation, Quantum Mechanics

PROFESSIONAL EXPERIENCE

General Motors, Wentzville, MO June 2024 – Aug 2024
Manufacturing Mechanical Engineering Intern

- Designed and installed alignment and protective manufacturing equipment that is saving the plant over \$150,000 annually
- Lead a feasibility study with the goal of automating part of the Body Shop
- Created standardized procedures to train others to operate the plant's new 3D printer
- Audited the entire plant to ensure all conveyor belts and drives were properly guarded

Fabri Inc., Cambridge, MA Jan 2024 – June 2024
Design Engineer Consultant

- Designed and built a filtration system for an IPA wash tank for 3D printed parts
- Developed a thermal imaging system to prevent a chemical fire within the printer
- Installed a remote monitoring system to track the live progress of a print job

Astronomical Instrumentation Team, Cambridge, MA June 2023 - Present
Undergraduate Mechanical Engineer

- Led the design and development of an auto-leveling system for a 1600kg bank assembly
- Created engineering and weldment drawings for the structural frame
- Performed FEA to ensure the Instrument's frame could withstand a major earthquake
- Coded a Python script that automated the alignment process of the Instrument's optics with micron-level precision cutting dozens of hours of labor

Mechatronics Research Laboratory, Cambridge, MA Sept 2022 - Aug 2023
Undergraduate Researcher

- Developed a hardware testbed for an Internal Permanent Magnet Synchronous Motor running at over 5000 RPM
- Tested and validated novel machine learning control algorithms using Simulink
- Employed rapid prototyping techniques to validate preliminary testbed designs

PROJECTS & INVOLVEMENT

MIT ITEC | Volunteered as an English and Citizenship Exam tutor for immigrants in Boston
MIT Theta Tau | Professional Engineering Fraternity Member; served the Judicial Committee
MITHbusters | Founding Member; tested pop culture myths using science and engineering
MIT Physics | Classical Mechanics and Electricity & Magnetism Problem Set grader
ReWine 2020 | Started a family crafting business that recycled wine bottles to create lamps

SKILLS & INTERESTS

Software: SolidWorks, NX, Python, Fusion 360, MATLAB, PolyWorks CMM, Arduino, FEA
Manufacturing: CNC Mill and Lathe machining, GD&T, Engineering Drawings, CAM
Languages: Bilingual in English and Spanish, Intermediate French, Basic Italian
Interests: Guitar, Astrophysics, Technology, Photography, Philosophy