Fernando José Oliver Mediavilla

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Portfolio: https://fern-0416.github.io/Portfolio/

Education

Massachusetts Institute of Technology, Cambridge, MA   **Graduation: May 2027**
GPA: 4.9/5.0
- Bachelor of Science in Computer Science and Electrical Engineering & Philosophy
- Undergraduate Teaching Assistant for Physics I of Fall 2024, Physics II of Spring 2025
- Capstone class: 6.115 Microcomputer Project Laboratory
  - Analyze and design embedded systems, create an operating system, use microcontrollers for electromechanical, analog, and memory peripherals. Program and operate PSoC devices.

Experience

Reality Hack Org, Cambridge, MA -**Board Member and Head of Logistics**   **Jan 2024-Present**
- Carry out the world's largest independent XR hackathon with over 600 hackers in attendance
- Coordinated venue, over 50k in sponsorships, and activities
- Prepared repositories and distributed equipment for the hackers

MIT Make, Cambridge, MA - **Mentor**   **Aug 2024 - February 2025**
- Supervise two of the most important makerspaces at MIT (Metropolis and the Deep)
- Calibrate, fix, and perform maintenance on heavy machinery (3D printers, metal working, wood working, etc.)
- Orient new members of the community and teach how to use machines/carry out projects

MAS Corporation, San Juan, PR - **Part-time Worker**   **June – Aug 2023**
- Filed, organized, and archived thousands of forms and invoices
- Created and optimized spreadsheets within the accounting department
- Praised for availability, productivity, and collaboration in a dynamic, fast-paced office environment

Research

Open-source development of virtual reality for MIT math and physics students, MIT   **February 2025, Present**
- Develop application for math and physic concept visualization in virtual reality. Concepts include gradient, vector fields, and electric fields. Final objective is implementation in MIT's calculus 2 and physics 2 classes.

Cicata, Instituto Politécnico Nacional, Querétaro, México   **June-July 2024**
- Designed a functional prototype of a bladeless wind/water turbine and tested it in the field.
- Used CAD software to fabricate models to support the research of other graduate students in the institute.

Reflective Make-AR In-Action, MIT
- Collaborated on an augmented reality program that teaches users how to use tools for making projects.
- Designed and assembled PCB to detect information on the user and the tool
- Incorporated speech-to-text and text-to-speech functionality.

Activities & Extracurriculars

VR/AR Club at MIT, **President**, former Treasurer   **Aug 2023 – Present**
- Create independent projects in Virtual Reality that vary from game design to hardware
- Budget and manage over 30k in funding
- Lead workshops on Unity, VR development, and project design
- Organize unique outreach programs for under

Snapdragon Spaces, Spaces Cadet   **Apr 2024 - Dec 2024**
- Work on projects involving Augmented Reality devices with selected students from Stanford, MIT, and USC

Association of Puerto Ricans at MIT, Treasurer   **Aug 2023 - Present**
- Organize and host events to celebrate Puerto Rican culture and spirit, often alongside other universities.

Mathematics Olympics of Puerto Rico, Competitor   **Mar 2015 – Apr 2023**
- Qualified for the 63rd International Mathematical Olympiad and networked with students from around the world
- Honorable mention at XXIII Central American Math Olympics and XXXVI Iberoamerican Math Olympics

Skills & Interests

Languages: Spanish and English (Bilingual), Russian (Beginner), Python, Java, Minispec, Assembly, and C++
Makerskills: Woodworking, Welding, 3D Printing, Waterjet, Lathe, Laser Cutting and Sewing
Software: CAD Design, Latex, Unity, Godot, Github
Hobbies: Video games, Archery, Running, Reading, Watching films, Latin Dance, Making personal projects