Christopher Evagora

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Education

Massachusetts Institute of Technology **Cambridge, MA**

M.Eng. in Electrical Engineering and Computer Science GPA: 5.0 Graduated: Feb 2025

B.S. in Electrical Engineering and Computer Science GPA: 4.4 Graduated: Feb 2023

- Relevant Coursework: Robotic Manipulation, Underactuated Robotics, Digital Systems Lab, Electromagnetic Waves and Applications, Power Electronics, Intro to Algorithms, Feedback System Design, Solid-State Circuits, Computation Structures, Machine Learning, Mechanics and Materials

Work Experience

Boston Dynamics

Senior Electrical Engineer - Atlas Actuation Team July 2025 – Dec 2025

- Focus on high performance, tightly integrated HDI circuit design. Mixed-signal and high speed digital circuit design.

MIT Biomimetic Robotics Lab Graduate Research

Humanoid Hardware Design and Optimization September 2022 – Feb 2025

- Designed, assembled, and modeled the battery pack for the MIT Biomimetic Lab's humanoid robot from the ground up. Capable of at least 7.5kW peaks. Involves mechanical design, BMS circuit design, battery cell characterization, and pack level transient modeling. Described further in my thesis.

Robotics & AI Institute

Motor Characterization Intern May 2024 – Sept 2024

- Designed hardware, electrical systems, and algorithms for collecting performance data on robot actuators using a custom and configurable dynamometer. Interfaced with off the shelf torque sensing solutions.

Boston Precision Motion

EE and Firmware Engineer Intern Jan 2023 – Feb 2023

- Designed hardware and developed firmware for a firm consulting a startup specializing in tele-operated humanoid robots.

MIT Motorsports- Formula SAE Electric

Battery Team Lead June 2020 – September 2022

- Lead designer and team organizer of the battery accumulator system for an electric racecar. Involves mechanical design and analysis of battery modules and boxes, thermo-fluid analysis and validation of water-cooling loop, and electrical design of bus-bars and fusing. Great emphasis on HV safety and maintainability.

Technical Projects - Each project and more described further at https://evagor.ac/

Three Phase Motor Control June 2024 - Sept 2024

- Using an STM32 and TI DRV830X dev kit, I successfulling implemented Field Oriented Control for a three phase brushless motor. The firmware is capable of receiving commands over UART, and has support for an external quadrature encoder.

Operation Space Controller for KUKA IIWA Sept 2023 - Dec 2023

- For my group's final project in MIT's Robotic Manipulation taught by Professor Tedrake, my role was to implement the operation space controller with a secondary null space controller to allow a KUKA IIWA to draw on unknown surfaces by applying constant pressure perpendicular to the surface by controlling joint torques. Simulated in Drake.

Thermal Camera Hacking Sept 2023 - May 2024

- Working alongside my roomate, we managed to hack a highly capable and cheap thermal camera. This project heavily involved FGPAs and Vivado. Capable of decoding the video stream in real time and driving a VGA monitor with the camera feed.

Skills

- Altium Designer, KiCad, Solidworks, Xilinx Vivado, STM32, LTspice, System Verilog, Python, MATLAB, C/C++, CNC, 3D-Printing