

Ethan Rajkumar

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Co-op Availability: September 2025 – December 2025

EDUCATION:

Wentworth Institute of Technology | Boston, MA

Bachelor of Science in Computer Engineering (BSCO)

Expected August 2026

GPA: 3.88 | **Dean's List:** Fall 2022 – Spring 2025

Relevant Courses: Introduction to Robotics, Embedded Systems, Signals and Systems, Digital Circuit Design, Analog Circuit Design, Computer Architecture, Applied Programming Concepts

SKILLS:

Programming Languages: C#, C++, C, Java, Verilog

Tools: Visual Studio, MATLAB, NI Multisim, Quartus Intel

Devices: Arduino, DE 10, Raspberry Pi, Oscilloscope

Systems: Windows 10/11, macOS, iOS, Android, Linux

Technical: Hardware Interfacing, Hardware Debugging, Software Development, Software Design, Logic Synthesis, VLSI

PROFESSIONAL EXPERIENCE:

Technical Support Engineer | Harvard University Information Technology

January 2025 – April 2025

- Independently repaired 30+ laptops including Dell, HP, and Samsung requiring RAM upgrades, trackpad repairs, motherboard cleanings, and full reassembly to resolve hardware faults and failures
- Took initiative in updating 40+ internal workflow articles detailing IT workflows and department expectations to improve technical documentation and onboarding materials for new hires
- Implemented four internal workflows to expand breadth of services including CrashPlan client management, consultation follow-ups in ServiceNow, locker audits for held devices, and hardware inventory catalogues

Technical Support Engineer | Harvard University Information Technology

April 2024 – August 2024

- Coordinated desktop and workstation installations with 20+ offices at Harvard College, managing appointment scheduling and efficient hardware deployment
- Performed routine maintenance at 10+ computer labs at Harvard College, resolving network connectivity issues, servicing printers, and managing local inventory
- Resolved over 500 IT support tickets in ServiceNow, providing efficient technical solutions and adhering to streamlined IT operations in a fast-paced environment

RELATED PROJECTS:

Raspberry Pi 5 LED Matrix Display | Individual

July 2025 - Present

- Configured and deployed a C++-based third-party driver to control a 64×64 HUB75 LED matrix using GPIO on Raspberry Pi 5
- Built and parameterized a C++ project from Unix terminal, modifying Makefiles and runtime settings for flexibility
- Performed signal-level analysis (PWM, DMA, GPIO timing) to optimize refresh rate and performance

FPGA I2C Signal Generator | Individual

June 2025

- Interfaced with MAX 10 FPGA hardware via Verilog HDL to drive 5V GPIO signals up to 50MHz in resolution
- Researched DE 10 Lite hardware to allow for users to configure messages sent with onboard slide switches
- Utilized test instruments to verify results are consistent with I2C's SDA and SCLK channel patterns

Microcontroller Hardware Interfacing Project | Team of 4

February 2024 – April 2024

- Reviewed STM32 hardware research including IO diagrams, power ratings, and produced code to ensure implementations were aligned with physical constraints
- Maintained a modular software design allowing for fast integration of new features and long-term scalability

ORGANIZATIONS:

- Institute of Electrical and Electronics Engineers (IEEE-HKN), **Honors Member**

August 2024 - Present

- Wentworth Engineering Honors Society (WEHS), **Treasurer / Secretary**

May 2025 Present