Shubaan Meyyappan

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Portfolio: tinyurl.com/Shubaanm | Open to relocate.

EDUCATION

Wentworth Institute of Technology, Boston MA **Anticipated December 2026**

B.S. Computer Engineering | Recent Dean's List Fall 2025

Relevant Courses: Advanced Digital Circuit Design, Computer Architecture, Analog Circuit Design, Microcontrollers Using C, Feedback and Controllers, Object-Oriented Programming (C++), Operating Systems, Signals and Systems, Computer Networks, Network Theory I & II, Probability & Statistics, MATLAB

TECHNICAL SKILLS

Programming & Scripting: MATLAB, C, C++, Python, Verilog, Assembly, CUDA

Circuit Design: RTL design, FSM architecture, clock division, glitch elimination, 7-segment display drivers; Analog & Digital, schematics, building, testing

Modeling & Simulation: MATLAB/Simulink (coursework), Multisim SPICE simulation, FSM modeling

EDA & Software: Intel Quartus Prime, ModelSim/Questa, Multisim, Cadence (schematic capture), Git/GitHub, Linux/Bash, Cisco Packet Tracer, Wireshark, Microsoft Office/Co-Pilot

Embedded & Controls: ESP32 (ARM Cortex-M), FPGA DE10-Lite (Intel MAX 10), Arduino Uno, Raspberry Pi 5, PID/feedback control, UART, BLE, SPI, I2C, GPIO, ADC

Networking: Cisco Packet Tracer, Wireshark, TCP/IP, DNS, DHCP

Test & Measurement: Oscilloscope, function generator, multimeter, power supply, bench soldering, schematic reading, welders, grinders

AI & Development Tools: Claude API, Claude Code (agentic coding), Floot (AI-native full-stack platform), REST APIs, LLM-powered application development

Operating Systems: Windows XP/7/8/10/11, MacOS, Linux

PROJECTS

SoC Power-Performance Characterization of NVIDIA Jetson Nano | Personal Project **March 2026 – Present**

- Developed Python power monitoring harness reading INA3221 current sensor over I2C.
- Published perf/watt efficiency curves across all nvpmodel configs and 5 workloads on GitHub.

Embedded Gait Analysis Insole - StepArc | Senior Capstone **Spring 2026 – Present**

- Developing battery-powered wearable using ESP32-S3 with BLE.
- Programming embedded C/C++ firmware for Tekscan FSR sensor data acquisition and real-time signal processing.

Speedometer & DAQ System | SAE BAJA Racing Team **January 2024 – Present**

- Designed custom sensor interface circuits for fuel flow and wheel speed; developing live telemetry platform for pit-crew performance monitoring and strategic decision-making.
- Led 4-person electrical team; created BOMs and integrated live telemetry dashboard for endurance racing.
- Integrated ruggedized sensors to withstand extreme vibration and mud consistent with motorsport environments.

Barn AC Controller – FPGA FSM | Advanced Digital Circuit Design **Summer 2025**

- Implemented 4-state FSM temperature controller on DE10-Lite FPGA in Verilog.
- Successfully demonstrated the temperature simulator and 7-segment display in a team of 2.

Formula 1 Tire Strategy System | Object-Oriented Programming **Summer 2025**

- Implemented Strategy design pattern in C++ CLI application modeling real-world F1 race conditions
- Utilized polymorphism and inheritance.

WORK EXPERIENCE

Kinnections | getkinnections.floot.app **January 2025 – Present**

Founder & Lead Developer | WIT ACE Entrepreneurship Co-op

- Built and deployed AI-powered platform using Claude API and Claude Code; secured $3,000 in competitive grants.
- Architected a full-stack application with AI profile parsing and intelligent attendee-exhibitor matching algorithm.

Wellness Residential Assistant (RA) | Wentworth Institute of Technology, Boston MA **June 2024 – April 2026**

- Designed and led 20+ inclusive and wellness building programs. Managed and led 60+ residents.

Enrollment Services Assistant | Wentworth Institute of Technology, Boston MA **September 2024 – April 2026**

- Managed FERPA-compliant student data across ServiceNow and Slate CRM for admission counsellors.

- Provided technical support and troubleshot application workflows for current and prospective students.

LEADERSHIP & ACTIVITIES

SAE BAJA WIT Racing Team | Electrical Systems Lead **September 2024 – Present**
- Leading all electrical systems for off-road race vehicle; hands-on motorsport engineering experience.

Residential Pre-College Program Assistant/Mentor | Wentworth Institute of Technology June 2024 – August 2025
- Mentored high school student summer cohorts. Designed and facilitated residential experience programs.

Nominated, Outstanding Junior Leadership Award | WIT **Spring 2025**
- Recognized for exceptional leadership through roles in residential life, on-campus work, and student engagement.

IEEE Club @ Wentworth | Member **January 2024 – Present**