

LAWAZ ISLAM

ELECTRICAL & COMPUTER ENGINEER · PLC & AUTOMATION · FPGA · EMBEDDED SYSTEMS

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Authorized to work for any employer in Canada (PGWP, no sponsorship required)

PROFILE

- MEng in Electrical and Computer Engineering (University of Windsor, 2026). Embedded systems, FPGA design, control systems and PLC automation, with a habit of validating the whole system, not just the part I built.
- Verilog and FPGA digital design on Artix-7. A MATLAB/Simulink powertrain controller benchmarked against a dynamic-programming optimum. Two deployed, tested software tools on the side, plus working Python and Power BI.
- Siemens TIA Portal PLC fundamentals and IoT certified. Studied or worked in five countries; new tools and new teams do not slow me down.

CORE SKILLS

Engineering & Systems: C, C++, Verilog, FPGA (Xilinx Vivado), MATLAB/Simulink, Embedded Systems, Arduino, ROS, IoT, Microcontrollers, Sensor Integration, PLC & SCADA (Siemens TIA Portal), Industrial Automation, Control Systems, Instrumentation

Programming & Data: Python, SQL, REST APIs, Git/GitHub, Excel (Advanced), Power BI, DAX

Platforms & Tools: Microsoft 365, SharePoint, ServiceNow, Power Automate, Power Apps, Requirements Analysis, Process Improvement

EDUCATION

Master of Engineering, Electrical and Computer Engineering

Jan 2025 to Apr 2026

University of Windsor, Windsor, ON | 84% (A average), approx. 3.7/4.0

Bachelor of Technology, Electronics and Communication Engineering

Jul 2020 to Jun 2024

Institute of Engineering & Management (IEM), Kolkata, India | CGPA 9.3/10.0, 3.70/4.0 (MAKAUT official conversion)

EXPERIENCE

Data Manager, Welcome Centre Shelter for Women & Families

Jan 2026 to Apr 2026

Windsor, ON

- Reconciled 100+ invoice records worth \$100K+ over 12 months for a non-profit serving 200+ clients, and caught 10+ discrepancies before they reached the operational reports.
- Analyzed a year of performance data and gave leadership month-over-month and year-over-year trends they could act on. Kept confidential records to regulated community-care standards.

IT Project Coordinator & Researcher, City of Windsor

Sep 2025 to Dec 2025

Windsor, ON

- Rebuilt 50+ ServiceNow knowledge-base articles, now used across the IT department, and audited 30+ entries to decide what stays internal and what citizens can see.
- Helped design the AI Use Case submission process (form structure, question flow, prioritization criteria) and supported active IT projects with feasibility checks and documentation under the Technology Strategy & Operations team.

INTERNSHIPS

IT Project Intern, Commercial Bank

Aug 2024 to Sep 2024

Doha, Qatar

- Built 3+ management reports in Power BI and Excel for the Customer Insights Technology team, pulling data from several systems into one clear view.
- Learned CRM fundamentals and the bank's internal processes under direct mentorship, then made data-quality updates to customer records that the manager and a cross-functional team reviewed.

Telecom Operations Intern, Ooredoo

Sep 2024 to Oct 2024

Doha, Qatar

- Produced 5+ internal reports in SQL and Python for a live telecom team of 20+ and flagged data irregularities for follow-up.
- Built SlickScores, a full-stack game rating web app (React, Flask, SQL, REST API), on my own during the placement.

VLSI Design Intern, Jadavpur University

Sep 2022 to Nov 2022

Kolkata, India

- Delivered 4+ FPGA lab projects at Grade A: counters, display controllers and shift registers in Verilog on Xilinx Vivado and Artix-7.
- Wrote the formal technical report for each project, covering design method and verification results, at the IC Design & Fabrication Centre.

Robotics Intern, SmartKnower

Aug 2022 to Oct 2022

Kolkata, India

- Set up ROS on a virtual Ubuntu machine, built a catkin workspace and ran the TurtleBot 3 Waffle model in Gazebo to simulate navigation.
- Built servo motor control systems on Arduino for the hardware half of the program.

PROJECTS

Verilog & FPGA Lab: Digital Systems

Verilog, Xilinx Vivado, Artix-7

- Real-time systems on Artix-7: 7-segment display, LCD interface, shift registers and clock division, built from combinational and sequential circuits with hierarchical modeling.
- Adders, multiplexers, decoders and counters in Verilog, each verified in Xilinx Vivado before it went to hardware.

Power Management Control of a Series PHEV

MATLAB, Simulink, QSS-Toolbox

- Rule-based power-management controller for the full powertrain in MATLAB/Simulink. Cut modeled fuel use by up to 98% against an ICE baseline across NEDC, EUDC, FTP-75 and FTP-Highway.
- Benchmarked against a dynamic-programming optimum (within 37.8%) and cross-checked with an independent forward-dynamic model, so the result is near-optimal rather than just good.

Voice-Controlled WiFi Home Automation System

NodeMCU ESP8266, Arduino IDE (C/C++), Android

- NodeMCU ESP8266 web server that maps incoming commands to a four-channel relay module over GPIO, switching four appliances independently.
- Android app with button and voice input sends IP-based HTTP commands straight to the microcontroller, so it works from anywhere with an internet connection.

ROS Simulation Project with TurtleBot 3

ROS, Gazebo, Ubuntu, Catkin

- ROS installed and configured on a virtual Ubuntu environment, with a structured catkin workspace for package management.
- TurtleBot 3 Waffle model running in Gazebo to test movement and interaction before any hardware is involved.

CERTIFICATIONS

Siemens SCE Automation Fundamentals: PLC | Become a PLC Developer | Learning SCADA: Industrial Automation | PLC: Industrial Sensors | Infosys: RPA Fundamentals and Build a Robot | Hands-on IoT (U. of Illinois) | SmartKnower: Robotics | Python Bootcamp (Udemy) | Microsoft: Data Analysis with Excel | Microsoft: Generative AI in Azure | IBM: Exploratory Data Analysis for ML | Anthropic: AI Fluency & Claude 101 | Standard First Aid & CPR-C | Naloxone

ADDITIONAL & LEADERSHIP

- Event Crew & General Laborer, ABL Employment (Jul 2025 to Present), Windsor, ON: venue props and staging for large concert events; sheet metal loading under OSHA PPE and lifting protocols in a fast manufacturing setting.
- Moderator, UWin UNify (Oct 2025 to Apr 2026), Windsor, ON: selected to moderate a campus community platform; handled conflicts, enforced the guidelines and supported leadership with announcements and engagement.
- VP Public Relations, IEM Toastmasters Club (2021 to 2022): grew weekly attendance 20% through outreach across 3+ districts and ran logistics for 25+ meetings. First Runner-Up, Detox 1.0 speaking contest.
- Delegate, UWill Discover Model United Nations 2025: represented Rwanda and drafted a working paper on sustainable development financing.
- Volunteer, University of Windsor (2025 to 2026): Relay for Life event day committee, Mental Health Association fundraising, Celebration of Nations flag parade, Good Greens food reclamation, and the Campus Community Garden donation plot program.

Selected programs: NASA Kennedy Space Center: Rocketry Program (2019) | National University of Singapore: AI, ML, IoT & Data Analytics Program (2022)