

Rifat Rahim, B. Eng. E.I.T #100524571

Highly-motivated individual with work experience in the intelligent traffic systems industry. Able to understand phasing diagrams and configure custom database for controllers. Experienced in testing and troubleshooting of traffic control cabinets along with products such as malfunction management units, cameras, detectors etc. Possesses strong programming skills in embedded systems with ARM cortex and Arduino microprocessors. Eager to gain more experience in the industry as an engineer. Licensed as an Engineer-in-Training by PEO.

TECHNICAL SKILLS:

- Extensive electrical design experience in analog/digital and mixed signal circuits
- Good understanding of microcontroller architecture
- Expert in programming of microcontrollers via C, C++ and Java in CodeWarrior and NetBeans IDE.
- Experience with Linux operating system and familiar with communication protocols
- Talented in electrical hardware and software troubleshooting with the aid of various test equipment
- Experience with Artificial Intelligent Systems (Machine Learning etc.)

TRANSFERRABLE SKILLS

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|--------------------------|---------------------|----------------------|
| ✓ Strong Communicator | ✓ Great Leader | ✓ Problem Solver |
| ✓ Quick Learner | ✓ Team Player | ✓ Effective Reporter |
| ✓ Independent Researcher | ✓ Positive Attitude | ✓ Strong Work Ethics |

PROJECTS/ CASE STUDIES

Embedded Systems Design

- Implemented a game and image gallery in the Keil MD1700 dev board using C and CodeWarrior IDE.

Sensors and Measurements

- Created a data acquisition system by using an Esduino board. Sensors such as accelerometer and strain gauge were integrated into the board and programmed using MATLAB. An LCD was soldered into the board to provide the user real time feedback.

Low Power Digital Integrated Circuits

- Used Cadence to design digital circuits. NMOS and PMOS transistors were used as building blocks to create the layout of an FPGA tile. The functionality of the FPGA was verified later as part of the Engineering Design Project.

Intelligent systems

- Created a program in MATLAB by using the theory of Multi-Layered Neural Networks. A digital image was broken down by the program and weights specific to red and brown were set. The result was an image with a red and brown tint.

RELEVANT WORK EXPERIENCE

Test Technician

2017-present

Econolite Canada Ltd, Markham

- Perform factory acceptance testing for traffic control systems produced or distributed by the company including but not limited to; Controllers, Malfunction Management Units, Power Supplies, Bus Interface Units, Communication (telemetry), Cabinets (NEMA & Caltrans), Detection Systems (video, radar and microwave), Signal Preemption and UPS.
- Perform high pot testing in accordance to CSA standards.
- Effectively troubleshoot and resolve issues by reading electrical schematics of the cabinet. Communicate with engineers, cabinet lead hand and assemblers to resolve cabinet test findings if necessary. Assist with assembly when necessary.
- Update and maintain computer logs pertaining to product quality findings, testing, serial numbers and third party electrical inspection.
- Keep product application notes and engineering bulletins regarding the hardware and software version specific to regions and cities all over Canada. Perform controller software upgrades or downgrades if required.
- Perform quality control and verify quantity prior to shipment.

Poll Clerk

2015 & 2016

Elections Canada, Toronto

- Track the number of voters to ensure the balance of ballots
- Work under pressure and long hours
- Organize documents in an efficient way to save time

AWARDS, LICENCES AND CERTIFICATES

- Valid G Driver's License and access to a vehicle
- E.I.T designation by PEO (#100524571)
- Ryerson University Entrance and Queen Elizabeth Scholarship
- Silver Medal at Toronto Sci-Tech Fair

EDUCATION



Bachelor of Electrical Engineering; Major: Energy Systems
Ryerson University

2016