

RAHUL ESWAR

TEST ENGINEER | EMBEDDED SYSTEMS DEV | RESEARCHER

Toronto, Ontario, Canada

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SUMMARY OF QUALIFICATIONS

A Systems and Computing Engineer with an aptitude for electronics and embedded systems development.

- Experienced designing 2-layer and 4-layer PCBs for mixed signal and high-voltage circuitry.
- Adept in programming and debugging STM32 ARM Cortex, ESP and Arduino microcontrollers.
- Strong knowledge of digital and network communication protocols not limited to I2C, SPI, MQTT.
- Expertise in programming languages C, C++ and Javascript for embedded and web applications.

RECENT WORK EXPERIENCE

UNIVERSITY OF GUELPH

RESEARCHER AND TA

May 2019 - PRESENT
Guelph, Canada

- Designed electronics and software of a digital microfluidic device used for parallel detection of antibiotics in milk.
- Delivered tutorials and lectures to class sizes up to 100.

CREATION TECHNOLOGIES

TEST ENGINEER

Apr 2018 - Jan 2019
Toronto, Canada

- Developed 2 test fixtures for automated testing of 4 PCBAs used in an electrochemical diagnostic product.
- Built LabVIEW application used by technicians to scan PCB bar-code, launch test program and update test result in database.

CITY OF TORONTO

IT INTERN

Jan 2017 - Sept 2018
Toronto, Canada

- Supported an ERP project in workflow documentation, database maintenance and provided general IT support.

TECHNICAL SKILLS

SOFTWARE

Programming

- C, C++
- LabVIEW, Teststand
- Javascript
- HTML, CSS, LaTeX

Toolkit

- FreeRTOS, QP-RTOS
- Node, Express, React
- Git, TortoiseSVN

Circuit Design

- KiCAD, OrCAD
- LTspice

HARDWARE

Microcontrollers

- STM32 ARM Cortex M
- ESP8266, ESP32
- ATmega328

EDUCATION

UNIVERSITY OF GUELPH

MASTER OF APPLIED SCIENCE

May 2019 - PRESENT

GPA: 93.8%

Dean's COVID Award

UNIVERSITY OF GUELPH

BACHELOR OF ENGINEERING (CO-OP)

Sept 2014 - Apr 2019

GPA: 83.4%

Honours Graduate

Entrance Scholarship

PROJECTS

Win32 Sudoku Solver 2020

GUI built with WinAPI and C. Applies a depth-first-search algorithm to solve a sudoku in real-time at user-chosen speeds.

OTTOGROW Hydroponics Grower 2019

Closed loop control system for ion concentrations in soil-less growing. User can adjust set-points and view data in real-time from a GUI.

PUBLICATIONS

Microfluidic fabrication with silver nanowires for optofluidic structures with three-dimensional operation (2020) - *Revisions requested*

Voltage control for microchip capillary electrophoresis analyses (2020) - *Revisions requested*