RAHUL ESWAR

TEST ENGINEER | EMBEDDED SYSTEMS DEV | RESEARCHER
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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.

RECENT WORK EXPERIENCE

UNIVERSITY OF GUELPH
May 2019 - PRESENT
RESEARCHER AND TA
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
Apr 2018 - Jan 2019
TEST ENGINEER
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
Jan 2017 - Sept 2018
IT INTERN
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-RTEF
- Node, Express, React
- Git, TortoiseSVN

Circuit Design
- KiCAD, OrCAD
- LTspice

HARDWARE

Microcontrollers
- STM32 ARM Cortex M
- EXP8266, 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*