# NIHAL RAGHURAJ

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### **SUMMARY**

Software developer with around *4 years of combined experience* in delivering high-quality, scalable solutions, proficient in OOPs, data structures and algorithms as well as designing and implementing RESTful APIs. Thrives working in fast-paced agile environments

# **SKILLS**

- C, Java, Embedded-C, Python, GO, Bash, JavaScript, HTML5, CSS3, Node, MYSQL
- Windows, MacOS, ROS, Linux (Ubuntu), AWS, CI/CD, Cucumber, Unit Testing, OOPs
- Networking: TCP/IP, DNS, UART, RS-232, RS-485, DHCP, DNS, VPN
- ARM (Raspberry pi/NVIDIA), Git and GitHub, Postman, PYQT5, Docker, Django, MongoDB, MERN stack, Microservices, Full-stack, Jira, Asana – All Professional Proficiency or above

### **WORK EXPERIENCE**

## **KONNEXIO INC.**

## Lead Software Controls Engineer, London, Canada

Nov 2021 – Present

- Automated a greenhouse disease detection robot by implementing Pytorch ML/AI algorithms with an accuracy rate of 85% for a prototype
- Expert in serial communication, authentication and troubleshooting complex networking issues between various modules
- Lead the design and development of a seamless HMI application using PYQT library
- Enriched system metrics by integrating remote access, facilitated in-depth logging by correlating APIs
- CI/CD pipeline integration, Pull requests, code reviews, load/stress testing, Unit/integration and regression testing
- Developed an automation script for PID closed-loop speed control of drive motorsimproving time efficiency by 50%

#### **SAPSOL TECHNOLOGIES INC.**

# Embedded System Engineer (CO-OP), Mississauga, Canada

May 2021 – Aug 2021

- Enhanced delivery satisfaction by 20% with an autonomous robot delivery system toprocess drive-through style delivery of packages to customers
- Embedded software testing, custom library package development and software version control management
- Analyzed, reviewed, interpreted and processed APIs using postman for a smart locker system to automate parcel lockers thereby increasing efficiency by 25%

#### **VENKAT SWITCH GEARS PVT. LTD**

# Embedded Software Developer, Bengaluru, India

Aug 2018 - Aug 2019

- Automated the content management system using TestNG and Cucumber frameworkthereby improving the customer experience and reducing the number of bugs by 10%
- Reduced service times by designing an issue tracking and revision control system

### **LOGICHIVE SOLUTIONS PVT. LTD**

# **Embedded Software Developer Intern, India**

Jan 2016 - June 2016

 Facilitated a student workshop on "Embedded systems and robotics" for 250 students and helped assemble a line-following robot

# **EDUCATION**

# The Hacking School (Coding Bootcamp)

Full-stack Web Development

<u>Project 1:</u> Developed a real-time weather application using async await and custom promises from open-weather API

<u>Project 2:</u> Developed a Single-page application (SPA) using React and Redux to allow users to search and book vacation rentals incorporating Google Maps API (location) & Firebase (AUTH)

### **PG Diploma in Software and Information Systems Testing**

Fanshawe College

*Project:* User testing of e-wheels application (Capstone)

- Setting up Apache tomcat server, bug report and test strategy
- Improving UI experience with application beta testing

# PG Diploma in Electronics and Embedded Systems Development

Fanshawe College

<u>Project:</u> Real-time Power Monitoring System (Capstone)

- Real-time updates of power consumed by electronics even in standby mode improving Power efficiency by 22%
- Developed a full-scale multiplayer Tic-tac-toe game with industry-level serial communication between PIC18 and mbed microcontrollers

# **Bachelor of Engineering in Electronics and Communication**

**CMR** University

<u>Project:</u> Closed-loop control of a 24V DC nano-grid with smart techniques

- Design, development, testing and maintenance of electrical equipment using LabVIEW and Matlab
- Network security fundamentals, data structures and OOPs in C, VLSI system design using Verilog and VHDL