

Rishan Ratnasivam

Computer Engineering

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SKILLS

Languages: JavaScript • HTML • CSS • PHP • Python • C++ • C# • C • Java • Bash • VB.NET • VBA • VHDL

Tools: React.js • React Native • Flutter • Node.js • Django • Flask • TensorFlow • SQL • MongoDB • Firebase • Cassandra • Docker • Bootstrap • Redux • Unreal Engine 4 • Unity 3D • Git • JIRA • Confluence • CCNA Routing & Switching • Arduino

WORK EXPERIENCE

Frontend Developer | *Pepperdata*

May 2021 - Aug 2021

- Designed and developed a full stack emailable reports feature using React, Java, SendGrid SMTP Service, and Amazon SES to allow users to send software performance reports to colleagues
- Built complete unit and integration tests using React Testing Library and Jest to automate meticulous testing of web components
- Improved product performance by resolving various frontend and backend bugs tracked in the GitHub issue tracker

Software Developer | *Futurecom Systems Group*

Sep 2020 - Dec 2020

- Developed a configuration file tester using C to perform a bit-by-bit comparison inside a binary mask between product EEPROM and the configuration file to verify successful loading of saved configuration
- Performed over 200 regression and feature tests on firmware and programming software, and reported results in Jira and RMsis
- Created and revised over 100 test scripts to test features efficiently and rigorously, resulting in a 15% increase in testing speeds

Junior Developer | *Futurecom Systems Group*

Jan 2020 - Apr 2020

- Performed regression tests on the Digital Vehicular Repeater System, a radio base station used with Motorola's APX Mobile Radios
- Executed over 200 software tests to evaluate the functionality of DVR firmware and reported observed results in Jira and Confluence
- Developed 4 different applications using Python and VBA to automate tasks and streamlined the product development workflow

C++ Programming Club Facilitator (Volunteer) | *SATEC @ W.A. Porter C.I.*

Sept 2018 - Jan 2019

- Taught C++ Programming to more than 25 students in a programming club

PROJECTS

NoteSense (Hackathon Winner – Hack the 6ix 2021)

Aug 2021 – Aug 2021

- Built a mobile app that aids individuals who have hearing or vision impairments to create PDF notes based on images or audio
- Primarily worked end-to-end on developing the image to PDF notes functionality using React Native for frontend, Flask for backend, and Google Cloud APIs for optical character recognition (OCR) and speech recognition

HTTP Web Server

Aug 2021 – Aug 2021

- Developed an HTTP Web Server, using C++, that hosts static HTML files and delivers them to end users on the Local Area Network through TCP/IP socket connections

Stocker (EngHack 2021 Project)

July 2021 – July 2021

- Built a social stock management app that allows users to showcase virtual stock portfolios to followers and get tailored stock news
- Designed and developed the mobile frontend using React Native and contributed towards the development of Python Flask REST endpoints and the design of the SQL database schema

Diabetes Doctor

Oct 2020 – Jan 2021

- Co-developed a diabetes prediction and health tracking platform that allows individuals to screen for diabetes using an accurate machine learning model and enables users to track and manage their medical data
- Designed the UI/UX, built the React.js frontend, and made REST API requests to a Python Flask backend linked to an SQL database

Contacts

Dec 2020 – Jan 2021

- Created a full stack contact keeping web application where users can register, login, and manage personal contacts
- Built both the frontend and backend using MERN stack, where the Node.js backend interacts with the React.js frontend through REST API requests and JSON web tokens, and the MongoDB database stores all users and their associated contacts

EDUCATION

Candidate for Bachelor of Applied Science in Honours Computer Engineering, University of Waterloo

Sept 2019 - present

Cumulative GPA: 92.5% (4.0 GPA); 2x Dean's Term Honours List

Relevant Courses: Algorithms and Data Structures, Digital Computers

AWARDS AND ACHIEVEMENTS

- Best Accessibility Hack Winner – Hack the 6ix (2021)
- Governor General's Academic Medal (2019)
- President's Scholarship of Distinction – UWaterloo (2019)
- 5th place at 2019 Skills Canada National – IT Network (2019)
- Gold Medal Winner at 2019 Skills Ontario - IT Network (2019)
- CISCO-CCNA1 to CCNA4 Routing & Switching Certificate (2019)