# COMPUTER ENGINEERING

# SKILLS SUMMARY

### **SOFTWARE**

- PythonSQLHTML/ CSSJavaScript
- CO JavaO VHDLO Assembly
- VHDLConfluenceJIRA
- ConfluenceJIRAMicrosoft OfficeGit
- o CMS o Firebase

### **HARDWARE**

- Oscilloscope, Multi-meter,
   Function generator
- o FPGA, Arduino Uno

### **KEY COURSES**

- Data Structures and Algorithms
- Microprocessor Systems
- Digital/Software Systems
- Electronic Circuits/Networks

# **EDUCATION**

Ryerson University
BACHELOR OF ENGINEERING
Computer Engineering
Expected Completion: April 2021

# **ACCOMPLISHMENTS**

- AmpHacks Creative Design Winner
- Bell IT Business Case Competition, 1<sup>st</sup> Place
- Ryerson Engineering Competition 3<sup>rd</sup> Place Programming Award
- Engineering Academic
   Achievement Scholarship

# **CERTIFICATIONS**

- o CCNA1, CCNA2
- (Cisco Certified Network Associate)
- WHMIS/EHS
- Emergency First Aid with CPR A

# **INTERESTS**

- New and innovative technology
- Competing in Hackathons
- Basketball Enthusiast
- o Fitness
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# WRICHIEK KAR

# PROFESSIONAL EXPERIENCE

# Project Manager/Web Developer | Bell Canada

May 2019 - August 2019

- o Managed a team by using JIRA to create a backlog and track user story progress
- o Tackled major defects on bell.ca across 1,900+ pages and completed fixes for 10,000+ issues
- Built proof of concepts for voice assistant development tools such as structured data, DialogFlow, and IBM Watson, in order to facilitate future roll-out
- Created a conversational Slackbot capable of posting extracted data from a repository, and emailing reports

### Fibre-Optic Technician | Bell Canada

May 2018 - September 2018

- Installed, maintained, and repaired telecommunications equipment, products and services, while achieving a 100%+ quality-effectiveness score
- Resolved complex products and system issues using EXFO Power Meter and digital multi-meter
- o Provided an exceptional customer experience for small-businesses and homeowners

#### Engineering Student Ambassador | Ryerson University

September 2018 – December 2018

- o Represented Ryerson Engineering at on- and off-campus recruitment events
- Led tours and promoted Ryerson at events such as the Ontario University Fair (attendance of 100,000+ students)

# **PROJECTS**

# FastDr., Creative Design Winner - Full Stack Developer

September 2019

Competed in AmpHacks to create a Web Application which calculated the fastest time to get assessed by a doctor in an ER from current location. Used Python to scrape data from websites and created an algorithm to calculate lowest cost function. Utilized Flask to connect python backend to HTML, CSS, and JavaScript frontend.

Slackbot August 2019

Created a conversational bot using a Slack app and incorporating multiple API's such as RTM (Real Time Messaging) and files.upload. It was designed to request data at any point in time and have an up-to-date report. When prompted, it ran a script to scrape Siteimprove for updated data.

# The Source Business Case, 1st Place - Web Developer

July 2019

Led a team to provide a solution regarding a corporate opportunity. Created a Loyalty Program which incentivized future purchases. Designed and implemented a public and authenticated website using HTML, CSS, JavaScript, and Bootstrap. User authentication was created using a real-time database. Once a login is attempted, a request is sent to the database verifying the credentials.

Microprocessor December 2018

Programmed latches, an Arithmetic Logic Unit, a Control Unit (contained a Finite State Machine and a 4x16 Decoder), using VHDL. The microprocessor was designed to be able to perform basic arithmetic functions using an FPGA board. The overall output was then displayed on a seven-segment display.

# Ryerson Engineering Competition, 3rd Place

November 2018

Led a team which created a web application designed to help those in need with suicide prevention. Used HTML, CSS and Google DialogFlow to create a chatbot. It was tailored towards suicide prevention with custom responses by using common phrases and machine learning.

# **EXTRACURRICULAR**

#### Director of Operations and Marketing | IEEE Rverson Chapter

September 2019 - Current

- Organize events for the faculty, including Hacker Cups, Alumni Industry Nights, Tutorials, etc.
- o Reach out to vendors and clubs to enhance relations and optimize collaboration efforts

# Hardware Engineer | Ryerson Formula Racing

September 2018 - April 2019

- o Programmed sensors for vehicle data collection using SAM C21 Xplained Pro
- Researched and sourced suitable parts for microprocessors considering efficiency, price and simplicity
- Work alongside cross-functional teams to ensure product efficiency and optimize performance