### Sarim Shahwar

Brampton, ON, Canada, L6X0S7

Phone: 437-980-5139

Email: Sarimshahwar@gmail.com

Website: <a href="https://ssarim.github.io/MyPortfolio/">https://ssarim.github.io/MyPortfolio/</a> LinkedIn: <a href="https://www.linkedin.com/in/sarimshahwar/">https://www.linkedin.com/in/sarimshahwar/</a>

# **Summary of Qualifications**

- Programming Languages: Java (OOP), C, HTML/CSS, JavaScript, VHDL, Verilog, SQL, Vue.js
- Operating Systems: Windows, Linux, MacOS, Android
- Software: Quartus (Digital Logic), Eclipse, NetBeans, JUnit, MATLAB, SOLIDWORKS, NI Multisim, Jenkins
- Hardware: Arduino, Raspberry Pi, Circuit Architecture Design
- Certification: Certified SOLIDWORKS Associate (CSWA), Spark Fundamentals, Hadoop Foundations, Big Data Foundations, Red Cross Youth Facilitator, WHMIS Certification.
- Languages: Fluent in English, conversational in Urdu, Hindi, and Arabic.

## **Education**

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TORONTO METROPOLITAN UNIVERSITY, Toronto, Ontario

George Vari Engineering and Computing Centre, ENG

Bachelor of Engineering (B.Eng. Computer Software Engineering)

## **Projects**

## Flight Booking System

- Created a Java program which functions as a simple model of a flight booking system.
- Objects were created to represent flights, passengers (frequent flyer member or non-member), bookings, available seats, ticket prices for respected members and non-members, departure, and arrival times.
- Tested the Flight Booking System with the use of JUnit to ensure the program functions with the desired outputs.

Skills: Java (OOP), JUnit, Eclipse, NetBeans

## **Simple GPCPU (General-Purpose Processor)**

- Designed and constructed a logic unit that functioned as a General-Purpose Processor.
- Created the following components which led to the final functional build of the processor: Arithmetic logic unit, Latch, Decoder logic, Multiplexer logic, FSM logic, Seven-Segment Display.
- Block Diagrams and waveforms were created to simulate the behavior of the designed processor.

Skills: VHDL, Verilog, Logic Functions

## **Announcement Application**

- Created an announcement application with the use of HTML/CSS and JavaScript.
- The application was implemented with the use of local storage.
- The announcement application consists of a separate student and teacher login page. Teachers will have access to a student viewer and an announcement sender page.
- Students will have access to only a student login page, and an announcement viewer page.

Skills: HTML/CSS, JavaScript, Sublime Text

September 2021– Present

#### **Greatlakes Data Calculator**

- Created a C language program to collect specific data from a table with regards the 6 Great Lakes.
- Given the data, the created program will then display specific information collected from the data table.
- Ex; lake with the highest temperature during a certain year, the average temperature of all the lakes in the past 5 years.

Skills: C, Geany

# **Work Experience**

## **Software Engineering Internship**

S&IM Corp - Toronto

May 2023– Present

- Creation of Company Websites using Wix UI/UX, HTML/CSS, JavaScript, React.js, and Velo API.
- Implementation and creation of booking, renting, and payment methods.

#### Vehicle Control System Team Member

Ryerson International Hyperloop – Toronto

January 2022– Present

- Guidance, Navigation & Control Systems Team Member
- Assist with various tasks involving but not limited to, programming the vehicle control system, designing the hardware layout, and testing the systems already in place.
- Create codes for Arduino, Raspberry PI, and Communication devices such as XBEE modules
- Wire circuits in order for each component to run accordingly, with respect to the created program.
- Coordinate with other team members to ensure all competition requirements are met.

## **CEWIL Technology Innovation & Social Impact Fellowship**

January 2022– May 2023

 ${\it Play4Tomorrow-North\ America}$ 

• Grand Prize winner of 150+ game submissions for "The Academy Challenge," a 48-hour game design competition.

- Working with the best international technologist and youth development experts
- Creating functional games that can impact youth socially and incorporate historically creative individuals such as tech entrepreneurs.
- Internship with possibly: Stanford University, Zero Degree Project, TVO, Roblox, TeachAids, etc.

## OMNI CUSTOMER EXPERIENCE SALESFLOOR ASSOCIATE

April 2020– August 2021

WALMART CANADA - Brampton, ON

- Provide customer service by offering assistance to meet the customer's shopping needs.
- Function as part of a team to strategically plan and execute duties based on workload and customer traffic patterns.
- Comply with All Food Safety standards and Cold Chain procedures, i.e., complete SureCheck.

### ROBOTICS PROGRAMMER & BUILDER

September 2017– June 2019

VEX ROBOTICS - Brampton, ON

• Overlooked and mentored by senior programmers on how to code using C++ in order for the robot to function.

- Created code for the autonomous driving function and driver control.
- Designed a 3-dimensional layout of the build, including the functionality.
- Built the robot using precise measurements and maintained the build throughout various competitions
- 2 Consecutive qualifications to the VEX Robotics World Championship in Louisville, Kentucky, USA.

August 202