Sukhvir Gill

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Education

York University **January 2022 – August 2025**

Bachelor's of Engineering., Spec. Hons. - Computer Engineering *Toronto, ON*

Relevant Coursework

- Data Structures
- Computer Organization
- Machine Learning
- Embedded Systems
- Software Development
- Operating Systems
- Systems Programming
- Computer Architecture

Technical Skills

Languages: Python, Java, JavaScript, Swift, C, C#, C++, Dart, Verilog, R, MATLAB
Developer Tools: Visual Studio, Eclipse, IntelliJ, Google Cloud Platform (GCP), Google Firebase, Azure DevOps
Technologies/Frameworks: Linux, GitHub, JUnit, RESTful APIs, SharePoint, Swing, Node.js, XCTest

Professional Experience

Freelance Developers **February 2022 – Dec 2023**

Associate Quality Assurance Engineer *Remote, ON*

- Contributed to the quality assurance and improvement of software applications, utilizing **Java**, **Swift**, and **WebApps** technologies to ensure adherence to standards and user satisfaction.
- Implemented robust strategies for test case creation and execution across **web** and **mobile** platforms, leveraging **SharePoint** and **Google Firebase** for data validation and management, leading to a **30% increase** in test coverage.
- Played a key role in an **Agile** scrum team, employing expertise in **Git** and **project management** to ensure efficient testing and defect resolution, resulting in a **15% improvement** in team productivity.
- Applied **DevOps** principles to optimize testing procedures, thereby enhancing project delivery timelines and workflow management efficiency, resulting in a **20% reduction** in testing cycle time.

Renewed Computer Technology (RCT) **September 2020 - Jan 2021**

IT Assistant *Mississauga, ON*

- Provided **technical support** for a non-profit charitable organization, diagnosing and resolving computer issues efficiently.
- Conducted dismantling and **troubleshooting** of computer systems, including hardware & software components.
- Assisted in **hardware maintenance**, contributing to a **25% increase** in hardware lifespan.
- Implemented strategies for **efficient** storage, resulting in a **30% improvement** in inventory management.
- **Collaborated** with the production department to report and address any necessary repairs or maintenance for computers.

Projects

Comunify - Flutter Mobile App | *Dart, C++, Swift* **January 2024**

- Devloped an **iOS** patrolling app using **Flutter framework** and **Google Maps API key**, emphasizing scalability and performance.
- Implemented robust incident reporting functionality enabling users to report diverse community incidents, enhancing **user engagement** and safety.
- Employed **XCTest framework** for automated testing and manual validation to ensure **app reliability** and effectiveness.

Whac-A-Mole | *Verilog HDL, Quartus Prime, ModelSim* **April 2023**

- Developed a Whack-a-Mole game on **DE10-Lite FPGA board** using **Verilog HDL**, orchestrated through **Quartus Prime**.
- Conducted thorough simulation and validation using **ModelSim**, ensuring seamless **functionality** and performance of **hardware logic**.

Replication of Car Sensor | *MATLAB, Arduino* **March 2023**

- Integrated an ultrasonic sensor into a simulated car model utilizing **Arduino** and **MATLAB** for sensor **data acquisition** and processing.
- Programmed Arduino **micro-controller** to modulate buzzer frequency and LED flashing rate based on **proximity sensor data**, ensuring **responsive feedback** to user inputs.

Automated Plant Watering System | *Java, Arduino* **January 2022**

- Engineered an Automated Plant Watering System using **Java** and **Arduino** integrated with a **MOSFET** board, soil moisture sensor and a water pump, demonstrating practical application of **IoT** principles.
- Integrated **AI algorithms**, including **decision trees** and **neural networks**, for predictive watering.
- Utilized sensor data processing for real-time adjustments, showcasing practical application of **AI** in responsive systems.