MIHIR GUPTA

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Technical Skills

Languages: Python, Java, Kotlin, Dart, C++, C, Javascript, XML, HTML/CSS
Frameworks | Libraries: ReactJS, Flutter, Tensorflow, Android SDK, Springboot, Java Swing, Java AWT
Development Tools: Git, Bash, Postman, Android Studio, VS Code, Atom, Vim, Eclipse, Github, Azure DevOps

Work Experience

Royal Bank of Canada | Android Developer Intern **Toronto, ON (Jan 2022 – April 2022)**

- Researched implementing in-app features into Google Assistant with Android widgets by undertaking a proof-of-concept (PoC)
- Architected several widget prototypes with Java and XML layouts to recreate services for the app and integrated the prototypes into Google Assistant
- Implemented fingerprint authentication into prototypes by using the Android native Biometric API; made secure REST API network calls to enable services in the widgets
- Presented the PoC results to the Head of Android Development and received positive feedback on prototypes

Microsys Inc. | Software Engineer Intern **Markham, ON (July 2021 – Aug 2021)**

- Developed a mobile app UX/UI using the Flutter framework and Dart development language on Android Studio to implement a smartphone version of web-based software solution and tested mobile app using the Android Emulator
- Tested REST API requests with Postman using JSON data-interchange format; programmed tested REST API calls in the mobile app to develop and code the core functionalities
- Communicated progress to senior developers and used Azure DevOps + Git version control to collaborate on development with other team members; participated in code reviews with senior developers and incorporated enhancement ideas

Volunteer Experience

Waterloo Aerial Robotics Group | Computer Vision Developer **Waterloo, ON (Jan 2022 – Present)**

- Built and trained a convolutional neural network using Python, the Tensorflow platform, and Keras API to classify images in the CIFAR-10 dataset as a coding boot camp project for the computer vision subteam
- Developed a web application with team members using Google Maps API and Javascript to plot coordinates sent from the drone during the competition

Cardinal Robotics (FRC Team 4252) | Team Mentor **Markham, ON (July 2021 – Present)**

- Managed a FIRST robotics team for the 2021-22 season and taught programming and engineering principles to new members
- Guided our team to take 1st place at the York University FIRST Robotics Competition event out of 18 other teams across Ontario

Projects

RBC Battlesnake Competition | Python, Flask, Battlesnake API

- Worked in a team to build and deploy a web server using Python and the Flask framework to compete in the RBC Winter 2022 Battlesnake Competition
- Requested and sent information to the Battlesnake API; programmed algorithms to determine the optimal move for every turn in the match
- Took 1st place in the rookie division competing against 12 other teams; the link to the competition recording can be found here

Sorting Algorithm Duration | Java, Java Swing, Event Listeners, Multithreading

- Programmed a Java Swing application to test which sorting algorithm (Bubble Sort, Insertion Sort, Partition Sort, and Selection Sort) is the most efficient in sorting a randomized set of integer elements in an array
- Developed this application using the Eclipse IDE and created the GUI with the Java Swing Library and Event Listeners
- Utilized Multithreading and Object-Oriented Programming to run the sorting algorithms concurrently

Education

University of Waterloo **Waterloo, ON**

Candidate for B.A.Sc., Computer Engineering September 2021 — April 2026