

Abhishek Chakraborty

abhishek.chakraborty@mail.utoronto.ca | 514-585-3850

Website: <https://abhichakra.github.io> | GitHub: github.com/abhiChakra

SKILLS

LANGUAGES: Java, Python, JavaScript, SQL, HTML & CSS, R, Verilog

TECHNOLOGIES: PostgreSQL, Android, Git, JavaFX

TOOLS: IntelliJ, PyCharm, Visual Studio Code, Android Studio

EXPERIENCE



SOFTWARE ENGINEER INTERN – STAPLES INC.

Mississauga, ON | January – April 2019 (4 months)

Worked in an Agile environment (Scrum) and developed a **discrete** and **event-based Java** simulator to **optimize robotic efficiency** in Staples' warehouses. Simulator allows for the modelling and testing of algorithms for warehouses with up to 100 mobile robots.

- Programmed simulator output graphs and visuals with **Python** using **Matplotlib** library with pyplot and animation.
- Implemented dynamic robot routing using **A* algorithm**. Featured robot-collision avoidance using grid **segment-locking** system with multi-robot deadlock detection using **directed edge graph**.
- Simulated large-scale warehouse orders using **Poisson process** and used **Quadtree** data structure for robot **speed** and **collision detection**.

EDUCATION

UNIVERSITY OF TORONTO | Toronto, ON | 3rd Year Student (2017 - Expected May 2021)

Candidate for Honours Bachelor of Science – Computer Science & Statistics

Relevant Coursework: Data Structures & Analysis, Object-oriented Software Design, Intro to Databases, Computer Organization, Methods of Data Analysis

PROJECTS

RESTMAN Restaurant Manager | GitHub: [Java-Restaurant-Management-System](#)

- Synchronized system manages food orders and employee tasks and displays relevant analytics such as menu item popularity and periodic sales using **JavaFX**.
- Frontend developed using JavaFX and backend using **Java**.

WORDLOOKUP Chrome Extension | GitHub: [Google-Chrome-WordLookup-Extension](#)

- Enables easy lookup of word by highlighting word and clicking extension icon.
- Utilized **Wordnik API** for word data along with **Google Chrome API**.
- Used **HTML** & **CSS** to design extension pop-up and **JavaScript** and **jQuery** to query, receive and parse data.

Android Weather App | GitHub: [Android-Weather-App](#)

- Used **OpenWeatherMap**, **Android API's** and **SQLite** to build weather application with Android Studio IDE.