SHAZIAH GAFUR

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SELECTED SKILLS

Languages: C/C++, Java, Python, JavaScript, HTML, CSS, Verilog   **Tools:** Git, MS Office, MATLAB, Postman, MochaJS, Solr
Frameworks: Spring Framework, Django, NodeJS, ExpressJS, ReactJS   **Databases:** MongoDB, PostgreSQL, SQL, CRUD & REST APIs, Access

WORK EXPERIENCE

Software Engineering Intern | Royaltymine (formerly ZHY Interactive Incorporated)   *Toronto, Ontario | June 2019 – Aug 2019*

- Developed cloud-based application using **NodeJS**, **MongoDB**, **React** to sustain online marketplace for music creators and investors to share music and collect royalties; currently used by over 100+ members
- Designed architecture and data models, managed tracking of revenue and user analytics, implemented back-end features from scratch, and established flow of payment splitting among shareholders
- Created **REST APIs** through React and NodeJS for performing CRUD operations and facilitating database transactions
- Performed automated and manual testing with **Postman** and **MochaJS** to enhance back-end features and API endpoints

Information Technology Business Analyst | Bell Canada   *Mississauga, Ontario | May 2020 – Aug 2020*

- Recreated the decade-old website for Operations Technical & Systems Support using **Java's Spring Framework** and **Spring MVC architecture**. Mentored the original creator who formerly built the site with Classical ASP and static HTML and CSS
- Developed new web components including employee login & authentication to enhance security of 1000+ employee users
- Developed search engine model and implementation for Corporate Asset Library, increasing relevancy of results by 60%
- Designed new data mapping for increasing efficiency of flows of IT Configuration Items among 10+ data sources

EDUCATION

University of Toronto St. George   *2018 – 2022 (expected)*
Computer Engineering | Bachelor of Applied Science

PROJECTS

All Nightr – A GIS Map application helping students navigate at night   *Jan 2020 – April 2020*

- Developed an application for students to locate study spots and places for food outside of class hours, as part of course ECE297 (Software Design and Communication) in **C++** using the **Open Source** code of OpenStreetMap
- Implemented path finding algorithms for determining directions, shortest routes, and constrained paths
- Created tactics to predict user's search requests, adjust map zoom automatically and provide a list of suggestions for input
- Optimized performance and map visualization using the **Open Source** GTK toolkit and EZGL graphics library

Process Improvement | reBOOT Canada   *Oct 2018 – July 2019*

- Redesigned information management for controlling flow of hardware donations in warehouse by creating the first cloud-based relational management system in Python, improving data integrity and tracking, and enabling task automation
- Integrated **PostgreSQL** database and **Django** to perform analytics, user authentication and facilitate database transactions

Piano Chord Detection Using Fourier Analysis   *Nov 2017 – Feb 2018*

- Self-directed research project to identify music notes of piano chords in a sample of music; topped **1st out of 120+** projects
- Self-taught university-level mathematics as a high school student
- Developed program with **Java** and **MATLAB** to simplify complex calculations of the Fourier Transform and implement sorting algorithms, assess frequency distribution, and identify specific musical keys

Augmented Workouts   *Winning Project at JAMHacks 2017 hackathon*

- Designed fitness gaming console to make wearisome exercise more enjoyable by immersing the user in a responsive 3D virtual environment; users reported 60% more willing to exercise after using Augmented Workouts
- Used **C++** with **Arduino** to generate pedometer functions and construct a calorie counter by interpreting gestures as exercise movements transactions

LEADERSHIP & ACTIVITIES

University of Toronto Machine Intelligence Student Team – VP of Industry Relations & Career Advisor   *June 2020 – Present*

- Leading team of students to execute career-related events in AI & ML throughout school year, e.g. virtual career fair, panels
- Securing sponsorship and event-based partnerships with numerous companies and UofT student organizations
- Maintaining a compilation of career resources for students here and write sections for bi-weekly newsletter