

SHAZIAH GAFUR

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SELECTED SKILLS

Languages: C/C++, Java, Python, JavaScript, HTML, CSS, Verilog

Frameworks: Django, NodeJS, ExpressJS, ReactJS, jQuery

Tools: Git, MATLAB, Excel, Postman, MochaJS, Photoshop

Databases: MongoDB, PostgreSQL, SQL, CRUD & REST APIs, Access

RELEVANT EXPERIENCE

Software Engineering Intern | Royaltymine (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

EDUCATION

University of Toronto St. George

2018 – 2022 (expected)

Computer Engineering | Bachelor of Applied Science

PROJECTS

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

BTOC Solutions

Oct 2016 – March 2017

- Designed and implemented the first-ever database management system from scratch using **SQL**, **Microsoft Access** & **Excel** to organize client subscription information for television service, reduce inefficient storage and cases of data loss
- Implemented advanced features including an automatic email system, macros, report & form generation, and input validation; reduced time for retrieving subscription data by 3 times

LEADERSHIP & ACTIVITIES

Lead Workshop Coordinator for Major League Hacking at TurnerHacks in June 2018

Nov 2017 – June 2018

- Initiated the first hackathon at local high school to inspire youth to get involved in technological innovation
- Developed interactive workshops in Web and Android App Development and served as lead presenter
- Provided mentorship and technical assistance to design teams; directed volunteers to engage and assist in workshops
- Event planning and scheduling for 50+ guests

University of Toronto Hyperloop Team – Software Design Team Member

Oct 2019 – Present

- Designing means of relaying internal and external communication signals in **C++** from various sensors to control systems
- Establishing reliable connections to control panel, improving data transmission rates, and performing health monitoring practices of data input for initiating emergency protocols