# Joshua Dorsett

# Software Engineer

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## **Education**

**Bachelor of Science in Computer Science**, Western Governors University

December 2020

Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Database Engineering, Object-Oriented Design Patterns, Software Testing, Computer Architecture, Operating Systems, Machine Learning, Networking and Security

# **Technical Skills**

**Languages**: C++, Python, Java, SQL, Javascript **Tools:** PyCharm, Jupyter Notebooks, CLion, Intellij,

QT Designer, Postman, Git, IdeaVim

Frameworks: Flask, Django, PyQt5, JavaFX,

React.js, Node.js, Agile, Waterfall

**Libraries**: SQLAlchemy, Psycopg2, JDBC, Scikit-learn, Pandas, Matplotlib, NumPy **Databases**: MySQL, PostgreSQL, SQLite **Certifications**: ITIL, CompTIA Project+

# **Projects**

### **Route Planner** | GitHub | Python

- Optimizes the routes of multiple shipping trucks using a modified implementation of Dijkstra's Algorithm
- Implements a custom Hash Table and Graph data structure to simulate the shipping environment
- Includes an asymptotic analysis of each function highlighting the performance of the core algorithm

#### **Real Estate Price Estimator** | GitHub | Python + Scikit-Learn + PyQt5

- Implements a Multi-Linear Regression algorithm to Predict the market value of a given house
- Includes a user friendly graphical user interface built in PyQt5 showcasing 3 interactive statistical visualizations as well as text fields to input new housing data
- Uses SQLite database to save previous housing data on a user's local machine to increase usability **Business Scheduling Application** | <u>GitHub</u> | *Java* + *SQL*
- Manages schedules for a business and prevents overlapping appointments for both clients and sales staff
- Employs MySQL database implemented with A.C.I.D. principles to increase query performance for faster load times
- Uses a Database-Object-Model design pattern encapsulates SQL prepared statements
- Graphical user interface written in JavaFX that offers the user with multiple tables and inputs to customize their schedule and to guery reports about their clients

## **Student Enrollment Application** | GitHub | C++20

- Enrolls new students and administers their schedule to prevent overlapping courses
- Utilizes modern C++ memory management to avoid memory leaks within the application

#### **Inventory Management Application** | GitHub | Java + JavaFX

- Regulates the inventory of a company that sells products along with the parts that make up that product using polymorphism
- Implements a Model-View-Controller pattern separates the logic from the user interface
- Offers a JavaFX graphical user interface that organizes products and parts in a table and allows the user to create, read, update, and delete items from that table

# Experience

## A1 Audio Engineer | Bentley Meeker

July 2019 - Present

- Audio Engineering / Audio Networking at corporate and political events for NBC and The Plaza Hotel
- Tasked with leading all audio engineering related activities at an event and leading a team of engineers

#### **Audio Engineer | Self Employed**

Nov 2015 - Present

- Engineered recordings and for brands including Gap, Nike, CNN, HBO, Credit Karma, and others
- Managed large recording projects where I was tasked with selecting the project team and meeting all deadlines