# **Brandt Davis**

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#### **EDUCATION**

## Bachelor of Science, Computer Science Western Governors University | Salt Lake City, UT

November 2022

### **PROJECTS**

## **Delivery Route Algorithm**

September 2022

- Implemented a greedy algorithm in Python to create a delivery route by choosing the closest of 27 locations
- Analyzed 40 rows of package data with 12 attributes each to determine which fields were most relevant
- Identified and integrated several package constraints into the delivery algorithm, such as delivery deadline and truck capacity
- Optimized delivery route from 165 miles to 127 miles

## **Appointment Setting Application**

August 2022

- Designed and coded seven unique frontend pages with JavaFX and Scene Builder
- Created a MySQL database and integrated the database with the Java application using a Java Database Connectivity object
- Programmed appointment/customer model classes for displaying and updating appointment/customer data
- Implemented the capability to filter appointment records by month and week
- Added the ability to view the schedule of a specific contact
- Developed a reporting feature to generate the total number of appointments by type and month, and also between a date range

## **Sorting Algorithms Visualizer**

September 2020

- Illustrated the sorting process of four sorting algorithms, including heapsort, quicksort, bubble sort and selection sort
- Utilized the tkinter Python library to develop the frontend interface and to set sorting speed
- Conceptualized how each of the four sorting algorithms work

## **SKILLS**

#### **Python**

- Built Rest APIs with the Django framework and worked with the Django ORM to interact with a PostgreSQL database
- Utilized Jupyter notebooks and the Pandas and NumPy libraries to perform data analysis and build linear regression models using data from CSV files
- Created web scraper scripts using the Selenium library

#### Java

- Created an inventory management system and implemented an SQL Server database into the application
- Experienced with using JavaFX and Scene Builder for making Java applications

## SQL

- Experienced with writing SQL queries to interact with an Oracle database
- Familiar with relational databases such as MySQL and Oracle and NoSQL databases such as MongoDB

#### Web Development

- Utilized the ReactJS framework for making frontend web applications
- Familiar with backend web development frameworks such as Django and Express, as well as creating Rest APIs with these frameworks
- Experienced with HTML, CSS, and JavaScript

#### **CERTIFICATIONS**

CompTIA Project+ITIL 4 Foundation

September 2022 August 2022