Andrew Iliescu

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SUMMARY

Computer engineering graduate with experience in a variety of software areas including both frontend and backend web development, embedded software development, android app development, and software application development. Worked as a programming tutor for a number of computer science and software engineering students, teaching proper coding practices and reinforcing object oriented programming concepts in both Java and Python.

EDUCATION

B.S. Computer Engineering | Milwaukee School of Engineering | GPA: 3.5 | 09/2017-05/2021
Minors in Mathematics &
Business Administration

PROJECT EXPERIENCE

Prims Algorithm Implementation | Python**:**

- Implemented Prims Algorithm to traverse a weighted graph and generate a minimum spanning tree.
- Created custom graph and tree data structure classes to generate and store the values.
- Utilized tools such as Matplotlib and NumPy to perform calculations and create a demo.

Result: Minimum spanning trees were created that showed the shortest path when an arbitrary node from the graph was selected as the starting point and the run time complexity of the algorithm was highlighted.

Smart Brain | React.js-Express.js-PostgreSQL**:**

- Built a responsive frontend using React so users can access the site on any medium they choose to.
- Utilized the Clarifai API to find human faces when an image was uploaded and highlight them to the user.
- Used Express to handle HTTP requests from the frontend and backend and sent data using JSON.
- Implemented proper security practices by hiding the API key and hashing users passwords before data was sent between the frontend and backend.
- Persistence was achieved by using a PostgreSQL database to store user credentials and information.

Result: A web application which allows users to search images for faces, point out any faces found in the image, and keep track of the number of queries completed.

Flashboard Android App | Java**:**

- The app provided real time speed values and a way to visualize the g-forces the car was experiencing.
- The phone's sensors and Google's FusedLocationProvider client were utilized to gather the data.
- Data was persisted using a Realm database and could be exported to a CSV document.
- Google maps was integrated to plot the user's course along with accompanying data right through the app.

Result: An Android app that was built for car enthusiasts and racers to provide real time data while in use, as well as a means of storing the gathered information and parsing it into a CSV for later review.

TECHNICAL SKILLS

- Java
- JavaScript
- Python
- React.js
- Node.js
- Git
- Linux
- SQL/NoSQL Databases
- C/C++

WORK HISTORY

Programming Tutor | Self-Employed | 01/2020 - Current