LEO CARTEN

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EDUCATION

PLYMOUTH STATE UNIVERSITY Plymouth, NH
Bachelor of Science Expected May 2024
Major in Computer Science; Minors in Mathematics
Cumulative GPA: 3.82/4.0; Presidents List 2020-2024
Relevant Coursework: Software Engineering; Operating Systems; Algorithms; Data Structures; Systems Programming in C/C++; Computational Theory; Web Development

PROFESSIONAL WORK EXPERIENCE

ACLARA TECHNOLOGIES Somersworth, NH
UI/UX Design Intern May 2023 – Aug 2023

- Helped develop Python programs to streamline workflows for our business team. The programs were aimed to reduce manual touch time for our label making department.
- Performed data validation and data cleaning using Python in conjunction with SQL

PLYMOUTH STATE UNIVERSITY Plymouth, NH
Computer Science Tutor Jan 2023 – Current

- Provide a tutoring service and support to peers in Python, Data Structures in Java, and Algorithms
- Demonstrate leadership, clear communication, and role modeling to peers by explaining complex concepts by guiding students through improved understanding of course material

RECENT UNIVERSITY PROJECTS

CAPSTONE PROJECT - CAMPUSCRUSH **(currently under development)** Feb 2024

- I have always been interested in mobile applications and machine learning, so I decided to combine my two interests into one project!
- CampusCrush is a dating / social networking application. CampusCrush is written in React Native, uses a Node.js API that I configured, and is currently being hosted on an AWS EC2 instance. The application uses a MySQL database. My application also has a built-in neural network that is programmed using the brain.js library.
- The application will also feature a live chat system, of which I will need to implement web sockets. The application also has built-in pagination to give it the "infinite scroll" feel.

CHESS PLAYING ROBOT Oct 2023

- My team and I developed a chess playing robot for our semester long Computer Architecture class. Our project clearly went above and beyond standards, being one of the best projects the professor has **ever** seen.
- The project was powered by 2 Arduinos, and 1 Raspberry Pi.
- I was responsible for developing the Machine Learning aspect of the project, done in Python which ran on the Raspberry Pi. I also wrote the coordinate logic for the Arduinos in C++, so that the Arm can traverse the x-y plane and pick up pieces to perform its move.

FULL STACK PROGRAMMING COMPETITION WEB APPLICATION Nov 2023

- I developed a Web-based programming competition for the Ethical Hacking Club at Plymouth State University.
- Every user was shown the same question, but was assigned a random input for each question that was already calculated on the server side, and stored in my database when the user created an account.
- The Application featured a MySQL database and PHP on the server side. On the front end, I used Bootstrap.
- You can view the application here: https://turing.plymouth.edu/~lmc1076/

FULL STACK RESTAURANT WEB APPLICATION Dec 2023

- My team and I developed an ordering system for a restaurant. We shared a Git repository that I was the owner of.
- I was responsible for server deployments, server scripting, continuous integration, and I also developed all of the front-end in Tailwind.

TECHNOLOGIES I HAVE SKILLS IN

Full-stack Development | Git | Python (NumPy, pandas, requests, Scikit, Tkinter, customTkinter) | REST APIs | JavaScript (Node.js, Express.js, brain.js) | SQL | Java | React Native | AWS | UI/UX Design | Linux OS

AWARDS, ACCOMPLISHMENTS, AND OTHERS

Awards: Awarded the Charles E. Brown Scholarship by the Computer Science Faculty (This award is given to a student who best demonstrates academic excellence and success)
GPA: 3.81 Cumulative
Articles: I write Computer Science blogs, check them out!
https://www.linkedin.com/in/leo-carten-925535195/recent-activity/articles/