Joshua Pratl

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Education

University of Michigan
Bachelor of Science in Computer Science   December 2024
- **Relevant Courses: Web Systems, Computer Security, Data Structures and Algorithms,** **GPA: 3.4**
  Human-Centered Software, User-Interface Development, Distributed Systems

Relevant Experience

Software Engineer Intern - Walmart Global Tech   June 2024 - Aug. 2024
- Developed a responsive backend API using Spring Boot interfacing with databases for real time data transfer.
- Wrote unit testing using Junit and Jacoco to ensure effective code coverage across the entire application.
- Organized and wrote scripts to deploy to Walmart Cloud Native Platform, working with Akeyless, Cloud Configuration Management and Kubernetes.
- **Technology used - Java, Spring Boot, Junit, Akeyless, CCM, Kubernetes, Kafka, Cassandra, maven**

Software Engineer Intern - John Deere   Feb. 2024 - May 2024
- Leveraging expertise in C++ to implement robot solutions, optimizing the functionality and user experience of agricultural machinery software.
- Led the enhancement of John Deere's Service Advisor product by developing advanced multithreaded C++ applications.
- Driving innovation in embedded software technologies to elevate product performance and reliability.
- **Technology used - C++, Cmake, GoogleTest, Linux, Concurrency,**

Assistant Researcher - Flynn Research Group   Sept. 2023 - Dec. 2023
- Developed and simulated advanced machine learning models using MATLAB and Python.
- Contributed to cutting-edge research, staying at the forefront of technological innovation.
- Focused on enhancing the locally competitive algorithm with sparse approximation for audio input files.
- Demonstrated ability to tackle complex challenges in machine learning.
- **Technology used - Matlab, ML libraries, Model training, Python**

Software Engineer Intern - Panduit   May 2023 - Aug 2023
- Developed an automation testing program utilizing Python and C++, resulting in a substantial reduction in testing duration and a marked enhancement in quality.
- Presented the project to senior management, effectively communicating its technical aspects and business impact
- Led a pivotal project, delivering weekly status updates and pivotal decisions to the team, thereby elevating transparency and fostering effective communication.
- Optimized instrument communication through PySerial and PyVisa, significantly increasing operational efficiency and system reliability.
- **Technology used - Python, PyTest, Robot Framework, RS-232, Lab Power Equipment, Automation Testing, C++, C**

Founder - Josh's Southside Repair   June 2016 - June 2022
- Founded a versatile vehicle enterprise specializing in service, sales, and custom construction, prioritizing maximum customer satisfaction.
- Independently orchestrated all facets of business operations, including scheduling, marketing, sales, and service.
- Strategically scaled the business to penetrate broader markets, enhancing sales figures and broadening the spectrum of clientele.
- Persistently undertook challenges outside my expertise to foster professional growth and expand my skill set.

Technical Projects

Instagram Clone Project | Tech Used - Python, Flask, React, JavaScript, HTML, CSS, Cypress
- Designed and implemented a relational database to store Instagram account data.
- Utilized SQL for efficient CRUD operations to manage user profiles, posts, and interactions.

Search Engine | Tech Used - Python, Text Analysis, Link Analysis, HTML, JavaScript, CSS
- Designed and implemented a REST API to handle search queries and return results, integrated with an interactive user interface.
- Leveraged advanced text and link analysis techniques to enhance search result relevance and accuracy.

Skills and Interests

Technical: C++, C, Java, Python, JavaScript, Go, HTML, CSS, Spring Boot, Flask, Junit, Pytest, Jacoco, Maven, SQL
Non-Technical: Teamwork, Time Management, Communication, Problem-Solving, Analytical, Team Player, Entrepreneur
Interests: Full-Stack, Frontend, Backend, Embedded, Testing, Trading, Distributed Systems, Security, UI Design