

Jason Saavedra

jasonsaavedra@yahoo.com • (786) 846-0333 • <https://github.com/jaysaavedra18> • <https://www.linkedin.com/in/jason-saavedra-software-developer/>

Objective

Seeking a software development role to leverage my programming skills and experience in developing innovative solutions while growing alongside experienced colleagues and within a dynamic company.

Education

PURDUE UNIVERSITY

West Lafayette, IN

May 2024

- BS in Computer Science w/ Software Engineering Concentration, Minor in Psychology
- GPA: 3.21/4.00
- Relevant Coursework: Relational Database Systems, Embedded Systems, Software Engineering I, Software Testing, Operating Systems, Systems Programming, Object-Oriented Programming, C Programming, Discrete Mathematics, Computer Architecture, Data Structures & Algorithms, iOS Development in Swift, Linear Algebra/Theorems & Proofs

Technical Skills

- **Programming:** JavaScript, Python, CSS, Html, C, C++, Swift, C#, Java, SQL, PowerShell
- **Frameworks:** Vue.js, Node.js, React, ASP.NET, JUnit
- **Operating Systems:** Windows, macOS, Linux, Ubuntu, Bash/PowerShell
- **Cloud Technologies:** AWS Certified Cloud Practitioner (EC2, S3, CloudFront), Google Cloud Services (Firebase),
- **Additional Skills:** Problem-solving, Communication, Adaptability, Analytical/Troubleshooting, Self-motivation

Projects

Weallison - Social Media Platform for Music Sharing

Jul 2024

- Developed a **full-stack** social media application enabling users to authenticate, share music, and comments online.
- Designed and implemented user authentication and profile management systems using **Django framework**.
- Created custom **React components** including a navbar, scroll indicator, and protected routes.
- Deployed the frontend on **AWS S3** and the backend on **EC2** using **Nginx** and **Gunicorn**.
- Built a commenting system with a **REST API** for CRUD operations.
- Configured **Route 53** for domain registration and subdomain management.
- Secured the application using **SSL certificates** from Certbot and a free SSL service.
- Technologies Used: React, HTML, CSS, JavaScript, Django, Python, AWS (EC2, S3, CloudFront, Route 53, VPC), Nginx, Gunicorn, SSL/TLS.

Java Database - Comprehensive Database Management System

Jan - May 2024

- Developed components of a simplified database management system (DBMS) based on **Minibase**, a small relational DBMS.
- Measured execution time of simple database queries against three different backend storage implementations.
- Utilized **JUnit** testing and **Maven** for build automation and test running.
- Developed buffer management functionalities using **Java** to handle data transfer between disk and memory.
- Created and chained Relational Algebra operators to form and evaluate Query Trees in **Java**.
- Designed and implemented a lock table for Two-Phase Locking (2PL) protocol in **Java** with a logging system for concurrency control.
- Technologies Used: Java, JUnit, Maven, Minibase

LivIn - University Student Housing Hunter

Jan - May 2024

- Designed intuitive frontend GUIs using **HTML** and **CSS** to enhance user experience.
- Managed user data securely utilizing **Google Firebase database and authentication**.
- Implemented backend functions in **JavaScript** and **TypeScript** for seamless communication of frontend components and cloud services.
- Built map routes using **Google Maps API**, **JavaScript** computations, and public coordinates of bus routes.
- Delivered sprint stories on time, consistently meeting deadlines and successfully demoing project milestones.
- Collaborated with team members using **Git** to ensure cohesive integration of all project components.
- Technologies Used: **Vue.js**, HTML, CSS, JavaScript, TypeScript, Google Firebase, Git.

XINU - Operating System

Aug - Dec 2023

- Enhanced and maintained capabilities and performance of a customized operating system.
- Expanded OS functionality through new system calls and bolstered security with privilege levels for controlled resource access.
- Optimized multitasking and system responsiveness through context switching enhancements and low-level operations with assembly.
- Technologies Used: C Programming, x86 AT&T Assembly.

Experience

Engineering Computer Network @ PURDUE - IT Service Representative

West Lafayette, IN

Nov 2022 - May 2024

- Developed and maintained **Python** scripts to automate routine tasks.
- Collaborated with the development team to enhance and debug tools programmed in **Python**.
- Delivered changes through reliable version control with **Git**.
- Familiarized myself with **PowerShell** commands and solutions to service issues.
- Utilized strong communication skills to explain technical concepts clearly to users.
- Provided top-notch customer service, resolving technical issues well and promptly.
- Proactively assigned user requests to myself or relative employees to keep the queues efficient.
- Documented common technical issues and solutions in a knowledge base.
- Managed inventory to ensure all hardware and software resources were up-to-date and available.

US AIR FORCE - Cadet

West Lafayette, IN

Aug 2018 - Jan 2020

- Served in flight leadership roles overseeing physical training, standardization, and Air Force-related academics.
- Recognized with academic and physical awards, earning a full tuition scholarship.