Josh Abbott

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EDUCATION

Bachelor of Science in Computer Science, Minor in Mathematics May 2025
Washington State University, Pullman, WA | President's Honor Roll
<u>Relevant Coursework</u>: Computer Networks & Security, Web Development, Machine Learning, Data Science, Database Systems

TECHNICAL SKILLS AND CONCEPTS

Programming Languages: Python, Lua, Java, JavaScript, C, C++, C#, R, HTML/CSS, SQL
Technologies & Concepts: Git, Agile/Scrum, OOP, Linux (Ubuntu), Unit Testing, MySQL (MariaDB), Bootstrap, React, Node.js

EXPERIENCE

Freelance Developer – Roblox | Remote 2016 – Present

- Co-created, programmed, and promoted a Roblox game with 2.1 million+ unique play sessions and ~600 peak concurrent players, managing end-to-end development from design to release
- Built scalable systems for 25+ games totaling 100 million+ play sessions, managing gameplay mechanics, user data, and project coordination
- Engineered responsive UI and multiplayer features for up to 50 concurrent players using Lua and Roblox Studio's built-in game engine tools across each game
- Increased ad clickthrough rates by up to 50% through A/B testing and data-driven iteration on platform-based advertisements viewed by millions

Washington State University | Pullman, WA

Teaching Assistant (Program Design & Development C/C++) 2024 – 2025

- Advised 150+ undergraduates during Spring and Fall semesters through weekly office hours, offering support on debugging, syntax, and core problem-solving in an introductory C++ programming course
- Led weekly in-person lab sessions for a cohort of 18 students each semester, delivering hands-on instruction and reinforcing key programming concepts through real-time support

Peer Mentor 2023 – 2025

- Mentored 2–3 first-year Computer Science and Engineering students throughout the academic year, offering academic and personal guidance to build strong study habits and ease the transition to college

PROJECTS

Inventory Tracking System | Capstone Project 2024

- Refactored and scaled an inventory system built with Express and PostgreSQL for 138 AgWeatherNet stations, collaborating in an Agile team of 3 to improve reliability and functionality
- Led the design and implementation of a responsive, branded interface spanning 20+ pages, adhering to strict design guidelines to ensure consistency, accessibility, and cross-device usability
- Created secure authentication with JSON Web Tokens, developed a role-based user permission system, and optimized SQL queries for efficient data storage and retrieval

Spreadsheet Application 2024

- Built a fully functional spreadsheet application in C# using WinForms and object-oriented design, featuring a dynamic grid-based GUI for real-time cell editing and formula evaluation
- Implemented core spreadsheet features including support for cell references, parentheses, and order of operations in formulas, along with undo/redo via stacks and custom save/load functionality
- Applied modular, event-driven programming and built 29-unit tests to ensure maintainability and scalable performance

Yelp Data Search Application 2025

- Assembled a Python tool to analyze Yelp's large-scale business data using PostgreSQL, applying JSON parsing, schema design, and query optimization to extract location-based insights
- Engineered and executed SQL ranking algorithms to sort over 11,000 businesses and 1M+ data points by popularity and success metrics for comparative analysis