

# 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

Relevant Coursework: Web Development, Database Systems, Computer Networks & Security, Machine Learning, Data Science

## TECHNICAL SKILLS AND CONCEPTS

**Programming Languages:** Java, Python, SQL, JavaScript, HTML/CSS

**Technologies & Concepts:** Node.js, Tailwind, React, Git, Agile/Scrum, PostgreSQL, Bootstrap

## 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

- 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 | JavaScript, SQL, Express

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, RESTful authentication and role-based authorization system with JWT; applied networking principles from CS coursework to manage user sessions and API security

### Location Data Analysis | Python, R, SQL

2024

- Built a scalable pipeline to efficiently process and analyze over 13,000 Google Location History JSON entries using Python, R, and SQL alongside a teammate
- Implemented custom extraction, data cleaning, and confidence-based filtering logic to aggregate high-quality data into a structured SQLite database
- Visualized data to discover movement patterns and behavioral shifts during the COVID-19 pandemic using R (ggplot2, leaflet, kmeans) and Python (seaborn, pandas) to create graphs, cluster maps, and heatmaps

### Yelp Data Search Application | Python, SQL

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