Uzonna Alexander

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EDUCATION

Carleton University

Ottawa, ON

Bachelor of Computer Science

Graduated April 2025

Projects

3D Horror Game $\mid C++$

- Developed a 3D horror game from scratch using Microsoft Visual Studio
- Implemented character animations using kinematics, enhancing the natural movement of the player
- Integrated realistic physics and dynamic lighting to enhance player immersion
- Conducted playtesting sessions with 20+ users, resulting in a 40% improvement in user experience

Gym Membership Command-Line Interface App | Java, SQL

- Developed a gym membership management application using Java for the CLI and PostgreSQL for the database
- Implemented CRUD operations with SQL queries to manage data within the database
- Conducted unit testing and debugging to ensure high-quality code
- Developed comprehensive logging and error-handling mechanisms to troubleshoot issues effectively

Web-Based Calculator | HTML, CSS, Javascript

- Developed a calculator web application using JS for operations and HTML/CSS for the UI
- Integrated error handling mechanisms to manage invalid inputs, improving the overall robustness of the app
- Designed a responsive UI using Flexbox, ensuring seamless functionality independent of size
- Optimized JS code by reducing redundant operations, achieving a 25% reduction in code size

EXPERIENCE

Freelance Web Developer

May 2025 – Present

React, Next.js, Tailwind CSS

Alex's Website

- Designed and developed a fully responsive author website for a published writer using React, Next.js, and Tailwind CSS
- Built custom components for biography, book listings, and on-scroll animations using modern CSS techniques
- Configured a custom domain and deployed the site via Netlify with mobile-first optimization

Production Associate

June 2021 – August 2024

KTH Shelburne Mfq.

Shelburne, ON

- Collaborated with engineering, quality assurance, and production teams to address product defects, contributing to a 10% reduction in defects and improved workflows
- Assisted in quality control by conducting inspections and reporting any found issues, leading to corrective actions and consistent product quality
- Adapted quickly to new machinery and software, assisting team members and improving overall efficiency

Math Tutor

June 2018 – June 2021

4 Word Thinking Tutoring

Shelburne, ON

- Developed personalized study plans, analyzing student challenges and providing tailored solutions that improved understanding
- Adapted to Zoom, Google Classroom, and digital whiteboards for remote tutoring, ensuring smooth, effective sessions
- Simplified complex math concepts, enhancing student comprehension and academic performance

TECHNICAL SKILLS

Tools and Frameworks: Git, VS Code, Visual Studio, IntelliJ, HTML/CSS, SQL, React, Next.js, Tailwind, AI Tools Languages: Java, Python, C/C++, JavaScript