ZACH PETERSON

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SKILLS

Languages:	C, C++ (C++20), C#, Java, glsl, Slang, MySQL, HTML, CSS, TypeScript
Frameworks & APIs:	Spring Boot, Angular, Django, HTMX, Vulkan 1.3, Glslang, Win32, Selenium, Mockito
Software & Tools:	Unity, Unreal Engine 5, Visual Studio, Atlassian, Git
Concepts:	Full Stack Software Development, OOP, DOP, Agile, Test-Driven Design, Low-Level Systems Programming, Memory Management

EXPERIENCE

FIS | **Full Stack Software Developer** — **May 2024 – June 2026**

- Execute full stack software development to build and scale robust enterprise applications.
- Develop back-end services and RESTful APIs utilizing Java and Spring Boot.
- Design and maintain dynamic, responsive front-end user interfaces utilizing Angular and TypeScript.
- Manage data architecture and optimize database operations using Microsoft SQL Server.

Cox Automotive | **Automated QA Engineer Extern** — **Jun 2023 – Aug 2023**

- Defined page objects for automated testing in C# with Selenium, optimizing test script structure.
- Developed automated UI tests that successfully detected and addressed multiple software bugs, contributing to overall product quality.

Neumont Game Studio | **Lead Gameplay Programmer Intern** — **Mar 2023 – Jun 2023**

- Implemented gameplay mechanics and Steam networking within Unity using C#.
- Acquired proficiency in integrating networking functionality seamlessly into game development processes.

Motorola Solutions | **Software Engineering Extern** — **Jan 2023 – Mar 2023**

- Developed environment replication software for Flex CAD, enhancing workflow efficiency.
- Implemented unit tests using Mockito to verify the intended behavior of the software, ensuring robust and reliable performance.

EDUCATION

Bachelor of Science in Software and Game Development — **August 2023**

Neumont College of Computer Science – Salt Lake City, UT

- Completed coursework in Calculus, Linear Algebra, and Algorithms & Data Structures.
- Accomplished a GPA of 3.97, recognized by Neumont's Presidents List.

PROJECTS

Nihility, Custom Game Engine | **Lead Architect / Programmer** — **Oct 2022 – Present**

- Architecting a custom 2D/3D game engine from scratch in C++20 utilizing Vulkan 1.3, Win32, and Raw Input.
- Implementing advanced low-level systems, including custom memory allocators, lock-free SPSC queues, and a task-based job system to maximize cache locality and minimize overhead.
- Building a custom level editor with mesh-building and tilemap functionality entirely from the ground up without third-party UI libraries.
- Achieved recognition for the best Capstone Project, awarded by alumni in 2023.

Live Tournament Tracker | **Full Stack Software Developer** — **Feb 2026 – Present**

- Engineered a live tournament match tracking platform utilizing Django, MySQL, and HTMX.
- Integrated real-time front-end updates and Discord OAuth for secure user authentication and seamless data tracking.