Zackary Hudgens

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Summary

A skilled software engineer with experience in a broad swath of languages and frameworks, including C++, C#, and Java. Currently seeking a return to traditional employment after a period of freelance development.

Skills

Languages: C++, C#, Java, JavaScript, Python
Tools: Git, GitHub Actions, SQL, Visual Studio, Linux
Libraries/Frameworks: Spring Boot, STL, Qt, Google Test, OpenGL
Paradigms: CI/CD, REST APIs, Unit Tests, Object-Oriented Programming, Agile Methodology

Experience

Software Engineer   Jan 2022 - Dec 2024
Self-Employed   *Lansing, IL*

- Created an open-source, cross-platform 3D rendering library written in C++ and utilizing OpenGL
- Automated builds and testing procedures for software by constructing a CI/CD pipeline using GitHub Actions
- Built a REST API for writing and retrieving geographical messages using Java and Spring Boot
- Developed a 3D map generator leveraging a custom algorithm in C# using the Godot Engine

Software Engineer   Jul 2018 - Oct 2021
Infoscitex   *Maryland Heights, MO*

- Designed and developed plugins for a multi-threaded modeling and simulation program using C++
- Improved user experience by developing widgets and extending GUIs using Qt and OpenGL
- Identified potential improvements by analyzing the code of fellow developers during code reviews
- Shared progress and issues in regular Scrum meetings according to Agile principles

Projects

KumaGL   github.com/ZackaryHudgens/KumaGL

- A cross-platform 3D rendering library written in C++ and GLSL
- Implements texture mapping, shader loading, and framebuffers

KumaECS   github.com/ZackaryHudgens/KumaECS

- A lightweight Entity Component System (ECS) implementation
- Makes use of custom data structures to maximize CPU cache efficiency for game logic

Education

Missouri University of Science and Technology   Rolla, MO
Bachelor of Science in Computer Science   *May 2018*