Christopher Martens

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Summary

Self-starting software engineer specializing in procedural generation with over 4 years of experience in visualization and game development gained through college coursework and independent projects. Passionate about learning new skills and applying them to projects. Enthusiastic about leveraging my technical expertise to make valuable contributions to impactful projects.

Education

Shawnee State University – Portsmouth, OH August 2020 – May 2024

Bachelor of Science in Digital Simulation and Gaming Engineering Technology with a Minor in Mathematical Sciences

- Graduated Summa Cum Laude
- Completed the Honors Program
- Unweighted GPA 3.91
- President's List (2 semesters); Dean's List (6 semesters)

Relevant Coursework

- Object Oriented Programming & Software Engineering
- Algorithms
- Data Structures
- Artificial Intelligence
- Compiler Design
- Concepts of 3D Graphics & Math
- Computer Graphics I/II

Programming Languages: C#, Python, GDScript, C, C++, VB.NET

Software: Unity, Godot 4, Unreal Engine 5, GitHub, Trello, Visual Studio

Applied Skills

- Procedural Generation
- Agile Development
- Calculus
- Linear Algebra
- Statistics
- Team Software Development
- Source Control
- Project Coordination

Work Experience

Self-Employed – Remote September 2023 – Present

Programming & Math Tutor

Delivered specialized tutoring in C#, C, C++, Python, Physics, Linear Algebra, Algorithms, Automata, Unreal Engine 5 and Godot 4, significantly enhancing a student's understanding. Effectively communicated programming concepts and taught problem-solving techniques to support academic success, as demonstrated by high test scores.

- Enhanced a student's problem-solving abilities and programming skill through targeted instruction and practice, leading to improved academic performance.
- Adapted tutoring sessions to meet the specific learning and timing needs of a student. Scheduled additional sessions as was necessary for the student's academic success and rescheduled sessions when conflicts arose.

Self-Employed – Remote June 2023

Mod Developer

Developed and delivered a modification for Minecraft using Minecraft's built-in scripting language for Twitch streamer AKalllo to use for content creation. The mod enables players to send a copy of enemies they kill to their opponents.

- Worked directly with a client to make a product to their specifications.
- Gave accurate time estimates for product completion, and delivered on time.

Shawnee State University – Portsmouth, OH August 2020 – May 2024

Math Tutor

Delivered specialized tutoring to over 100 students in Differential & Integral Calculus, Linear Algebra, and Statistics, significantly enhancing their comprehension and problem-solving abilities. Communicated complex mathematical concepts to students in order to support academic success, as demonstrated by consistently positive feedback.

- Strengthened students' mathematical reasoning skills and problem-solving abilities through personalized instruction and practice, resulting in improved academic performance.
- Incorporated feedback from students and staff to refine tutoring methods and deepen understanding of material to maintain a high quality of tutoring.

Projects

Gourmet Gauntlet – Godot Game August 2023 – May 2024

Developed a 2D top-down twin-stick shooter roguelike game over a year as a school project. Led a team of 3 programmers and 1 artist. Utilized Godot's scripting language and engine features to create a procedural generation system, enemy AI, and a multi-phase boss fight. Used GitHub as a source control and Trello for managing and assigning work items.

- Developed a robust and expandable procedural generation system that generates game levels at runtime.
- Created a base enemy class that enabled new enemy types to be created easily by inheriting a base class.

Out of Sight, Out of Mind – Godot Game November 2023

Developed a 3D puzzle game in a week for the Shawnee State University Gaming Houses Jam. Implemented puzzle mechanics where level components would reset when out of view, creating perception-based puzzles. Received positive feedback about the quality of the finished game.

- Balanced developing a complete game with other school projects and homework
- Researched specific engine features utilizing documentation and forums.