William Tyler Martin

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Highly motivated computer science graduate with exceptional problem solving skills and a diverse educational background. Experienced in both game and software development, coding, automated testing, and graphics programming. Seeking a full-time position where I can become an early contributor utilizing my skills and multi-faceted perspectives.

EDUCATION

M.S. Data Science
Marshall University - Huntington WV, January 2025 - Present

B.S. Digital Simulation & Game Engineering Technology
Shawnee State University - Portsmouth Ohio, May 2024

B.S. Biomedical Science
Morehead State University - Morehead KY, May 2020

HIGHLIGHTS OF EXPERTISE/SKILLS

- C
- C++/C#
- Python
- JavaScript
- HTML
- CSS
- ARM
- ServiceNow Certified System Administrator
- Vulkan graphics API
- OpenGL
- Blender
- Automated testing
- SIMD intrinsics
- .NET Framework
- Azure
- Vertex, Fragment and Pixel Shaders
- Front End Multiplayer
- Back End Multiplayer
- Multithreaded and Multi Process Programming
- Operating System Development
- Data Structure and Search Algorithm Application
- Solution debugging
- Adobe Photoshop, Premier, Illustrator
- Lua
- Cmake
- Assembly
- Agile
- Unreal
- Unity
- Godot
- Project Management
- Scrum
- AWS

WORK EXPERIENCE

Simulation Programmer and Technical Designer   June 2024 - Present
Tensa Sports - Bellevue, WA

- Lead sports simulation design and programming
- Utilized game engines to output data from simulated physics to be used to train computer vision and AI targeting systems
- Created and revised meshes and textures for simulation and training application
- Created controller models as well as server solutions for RL targeting systems
- Created output data and log systems in game

Instructor   January 2025 - Present
Shawnee State University- Portsmouth, OH
- Presented and trained students on emerging technologies
- Instructed students on programming and multimedia applications
- Organized groups to accomplish game and simulation projects
- Instructed and guided students in Python programming

Supplemental Instructor   January 2023 - May 2024
Shawnee State University- Portsmouth, OH
- Reviewed and revised students' Python and C++ code, provided clear explanations, and prepared educational content
- Instructed peers in Vector and Matrix mathematics and communicated effectively with instructors and students

Americorps Member   August 2020 - June 2023
MSU Corps - Morehead, Greenup and Catlettsburg, KY
- Scheduled tutoring sessions, conducted classes with groups of elementary children, and planned enrichment courses

ACADEMIC PROJECTS
Moonbucks Coffee
- Utilized ServiceNow to create an internal system for a coffee company to manage inventory and furniture inside a current store

Slobberhannes Online
- Collaborated within a large development team, adhering to established software development workflows and systems
- Utilized object-oriented programming patterns in an Agile environment
- Wrote concise test code and implemented Account changes using SQL Database

Vulkan Graphics Engine
- Developed a graphics Engine on Vulkan API, maintaining and improving graphics tools
- Built parsers for GLB files and optimized runtime applications using SIMD

Solus
- Created pitch and design documents, implemented gameplay systems, and optimized game performance
- Developed state machine-based movement and documented work according to defined processes
- Produced milestone presentations and reports, meeting expected timelines and deadlines

Far Horizon
- Designed art, animations, and scripts in C++, C#, and Godot Script across multiple game engines
- Experimented with internal game tools/workflows and designed 3D models and animations in Blender

Rocket Royale
- Designed a networking model and implemented first-person shooter logic using C++
- Gained experience with front-end and/or back-end multiplayer services
- Utilized Perforce version control and Jetbrains IDE for development

Against All Odds
- Managed project and version control using Git, developed Python framework for gameplay systems
- Built Tilemap loading from text file, co-designed movement and collision
- Developed Python framework for gameplay systems

Miscellaneous Projects
- Developed LR Compiler in C# using assembly instructions
- Created a Linear Perceptron training program in Python
- Developed machine learning and language prediction projects with Python
- Built low level Raspberry PI OS for ARM and concurrent operations
- Built concurrent Python projects including server based tic-tac-toe game
- Developed networking models using Raspberry Pico

Presentations/Other Opportunities
- Presented on Mission and Narrative Design at Shawnee Game Conference
- Practiced Narrative and Quest Design in TableTop RPG systems
- Wrote dialogue, lore, characters, and item descriptions for in game systems

REFERENCES

Logan Spears
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Tensa Sports
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Robert Duane Skaggs
Professor of Digital Simulation and Gaming / Graduate Professor of Mathematics
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