




# Stephen Watson

## Software Engineer

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### Education

#### James Madison University

May 2024

Bachelor of Science in Computer Science

### Technical Skills

#### Programming:

Proficient: Python • C/C++ • Java • GLSL • Javascript • HTML/CSS

Familiar: Ruby • Rust • Haskell • C# • Shell • Assembly

#### Libraries/Frameworks:

OpenGL • GLFW • ImGui • GLM • Scikit-Learn • Pandas • NumPy • PyQt

#### Tools/Platforms:

MSVC • Premake • Git/Github • Notion • LaTeX

### Extracurricular Activities

#### Capital Region Celebration of Women in Computing

Jan 2024 - May 2024

Team Member | Harrisonburg, VA

- Developed a web application using the Google API to visualize the Traveling Salesman Problem for the JMU campus and Harrisonburg area, integrating classroom algorithms with real-world data.
- Collaborated with the team to win **First Place** in the Flash Talk category for project presentation.

#### Piedmont Student Launch Team

Aug 2019 - May 2022

Payload Lead | Charlottesville, VA

- Led the design, testing, and documentation of payloads for high-powered model rockets as part of NASA's Student Launch Initiative, ensuring compliance and safety during presentations to NASA.

### Internship

#### AccuTec, Inc

June 2023 – Dec 2023

Intern | Verona, VA

- Leveraged Visual Basic and Python to streamline data entry processes and enhance operational efficiency.
- Developed and deployed automated email workflows for the customer service department, reducing manual tasks and improving response times.

### Projects

#### Lumina

June 2024

Custom Application Framework with OpenGL and ImGui

- Built a modern GUI framework using C++, GLFW, and ImGui, with a focus on high graphical fidelity and performance.
- Developed a custom class-based OpenGL wrapper to enable high-level graphics abstractions.
- Created tools for managing models, cameras, textures, transforms, and shaders.

#### Tiles

Nov 2024

Tile-Based Map Editor Built with Lumina

- Created a tile-based map editor using C++ and Lumina to design 2D game levels with export capabilities.
- Adopted a layer-based approach for detailed and flexible level creation.
- Developed tools for resizing, erasing, filling, saving, and loading tile boards.

#### KeyActions

Aug 2024

Key Recorder, Player, and Editor

- Developed a GUI-based application in Python with PyInput and PyQt to record, edit, and play back key sequences.
- Implemented tools for users to create custom recordings by combining and sequencing previously recorded inputs.