

Liam McKenna

Computer Science Graduate Student

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Summary

Master's candidate in Computer Science specializing in computer graphics and real-time 3D application development, with proficiency in C/C++, OpenGL/GLSL, and 3D modeling (Blender, Maya). Expertise in designing robust and efficient software systems refined through extensive game development experience (Unity) and full-scale 3D application development. Eager to obtain professional experience in the development of production-grade computer graphics solutions.

Education

University of Florida, MS in Computer Science | 3.77 GPA Expected Spring 2026

- **Academic Focus:** Computer Graphics, Complex Algorithms, Computer Architecture
- **Supervised Research:** SurfLab (on Experimental Real-Time Rendering, Under Prof. Jörg Peters)

University of Florida, BS in Computer Science | 3.57 GPA (Cum Laude) Summer 2024

- **Minor:** Digital Arts and Sciences (Game Design)
- **Relevant Coursework:** Object-Oriented Programming, 3D Modeling ([Portfolio](#)), Game Development

Experience

Academic Researcher, [SurfLab](#) – Gainesville, FL Jan 2025 - Present

- **Supervisor:** Professor Jörg Peters
- **Research Focus:** Exploring Unconventional Methodologies to Develop Competitive Lighting Solutions

Software Development Intern, [United Wholesale Mortgage](#) – Pontiac, MI Summer 2023

- Worked alongside fellow interns to spearhead the development of new tools built to assist in debugging the company's extensive suite of proprietary software.
- **Skills and Experience:** Unit Testing (C#, Postman), Database Development (Oracle, SQL), Contemporary SDLC Practices (Agile, Microservice Architecture)

Projects

APGP | Multipurpose Custom 3D Rendering Environment (C++, OpenGL, GLSL) Fall 2024 - Present

- Creating a highly modular real-time 3D rendering engine as a foundation for the testing and implementation of all graphics-related personal studies ([GitHub](#))

SteamQuack | Personalized Game Recommendation Website (HTML, JS, CS) Summer 2024

- Scrapes the Steam digital storefront and the user's public playtime data via the Steam Web API to create a highly interactive and personalized game recommendation service (steamquack.com | [GitHub](#))

Topposition | Proc-Gen Game Built on a Custom 2D Engine (C++, SDL2) Fall 2023

- Original feature-complete strategy game developed alongside its own SDL2-based engine, boasting procedural terrain generation and local multiplayer ([GitHub](#) | [Showcase](#))

Itch.io Portfolio | Extended Game Development Showcase (Unity, C#) Fall 2022 - Present

- A diverse collection of Unity-based experiences developed through game jams, hackathons, personal ventures, and class projects, demonstrating a breadth of programming, design, artistic, and leadership abilities ([Portfolio](#))

Technical Skills

Languages: C/C++, C#, GLSL, Lua, JavaScript, HTML/CSS, SQL, Batch

Programs/Frameworks: OpenGL, Unity, Blender, Maya, Adobe Suite, Postman

Subjects: 3D Rendering, Advanced Software Systems, Algorithm Design and Optimization