

# Jaylon Sifuentes

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## Education

### MICHIGAN STATE UNIVERSITY

B.A., Games and Interactive Media Development, GPA: 3.93

Minor: Computer Science

Awards: Dean's List, Hispanic Scholarship Fund Scholar, Graduated with Honor

Relevant Coursework: Algorithms and Data Structures, Object-Oriented Software Development, Linear Algebra, Advanced Game Development, Computer Graphics

East Lansing, MI

May 2026

## Experience

### SCARY DINNER GAMES

#### Lead Programmer

September 2024-Current

- Maintained code quality and team productivity by establishing code review standards and GitLab workflows for 10-developer Unity Steam release, reducing bugs and merge conflicts
- Built a scalable template-driven roguelike deck system, empowering designers, writers, and artists to create content independently- documented with class diagrams and tutorial videos to maximize cross-discipline content creation

### DETROIT PUBLIC SCHOOLS

#### Lead Instructor

June 2024-August 2025

- Taught STEM-based lessons, including an introduction to coding, to classes of students grades 1-8
- Tailored lessons to varying comprehension levels to maximize student learning and engagement

## Projects

### 3D Graphics Engines

Developed 3D graphics engines in C++ using Vulkan and OpenGL, implementing PBR (Cook-Torrance BRDF, IBL), core glTF 2.0 scene loading, and parallax occlusion mapping.

### Ray Tracing

Implemented Photon Map global illumination in Vulkan, featuring multi-bounce indirect lighting utilizing BSDF, Russian roulette termination, octree-accelerated photon gathering, and real-time visualization with adjustable photon count and gather radius.

### Voxel Octree

Programmed a voxel octree with physics in Unity, including a GPU instancing optimization capable of over 2 million voxels per chunk with real-time destruction.

### Tiled Decals

Optimized decal rendering via compute shader clustering in a visibility buffer architecture, scaling to thousands of decals with a 3x+ average frame time improvement.

## Extracurricular

### SPARTASOFT CLUB

#### Participant

April 2023-Current

- Collaborated with cross-disciplinary teams to implement game features and drive project completion during game jams
- Learned to balance scope, quality, and pace across multiple short-term game projects, improving ability to estimate programming timelines and feasibility

## Skills

**Programming:** C++, C#, Python

**Tools:** Vulkan, OpenGL, Unity

**Workflow:** UML, GitHub, GitLab