

# SHANGSONG XUE (NOFER)

(216) 301-4375 | nofer@bu.edu | <https://github.com/nooffer> | <https://nooffer.github.io> | [www.linkedin.com/in/nofer-xue](https://www.linkedin.com/in/nofer-xue)

## EDUCATION

### Boston University - Boston, MA

#### Computer Science (BA)

Expected May 2026

GPA: 4.00/4.00

Relevant Coursework: Computer Graphics, Algorithm, Programming Language (received A in all listed courses)

### Case Western Reserve University - Cleveland, OH

#### Computer Science (BS)

Sep 2022 – May 2024

GPA: 3.78/4.00 (Achieved Dean's High Honors in all completed semesters)

Relevant Coursework: Game Development, Data Structures, Logic Design and Computer Structure, Web Development, Linear Algebra, Discrete Math, Java (received A in all listed courses)

### Harvard University Summer School

#### Introduction/Game Development

Jun 2023 – Aug 2023

GPA: 4.00/4.00

## WORK EXPERIENCE

### Chief Game Developer

#### Educational Game Development Team at Case Western Reserve University

Dec 2022 – May 2024

- Spearheaded early-stage game design and prototyping with other founding members of the team
- Reviewed resumes during later team expansion and guided 3 new members through project onboarding
- Implemented and maintained several core gameplay mechanisms over 2 years
- Executed performance optimization and project refactoring, increased the performance on the target platform by nearly 25%
- Hosted interactive learning sessions for local students with different levels of education
- Pitched project to funders, as well as teachers and students across 4 local K8 schools, successfully securing funding for its development
- Collaborated with other members through ticketing systems, such as Codecks and Trello

## PROJECTS

### Customized GPU Renderer C++/OpenGL

Dec 2023 – Present

- Comprised a linear algebra library of vector, matrix, and quaternion for 3D transformation
- Included model file parsing, lighting rendering, input handling, and customizable user interface for scene adjustment
- Designed to support multiple rendering API and platform API in the future (currently supports OpenGL on Windows)
- Planned to add a physics system and other modules to produce a customized game engine

### Customized Software Renderer C++/Python

Feb 2023 – Mar 2023

- Software rasterization of geometries
- Supports model file parsing, lighting rendering, and input handling

### Game Jam Projects & Unity Mini-projects Unity Engine/C#/ShaderLab

Jun 2022 – Present

- Games created in collaboration during 48H game jams as the sole programmer on the team
- A variety of Unity mini-projects exploring ideas such as scriptable render pipeline, GPU-assisted mass computation, stylized/non-photorealistic rendering, ray marching, etc.

### Personal Website HTML/CSS

September 2024

## SKILL

Programming Language: C++, Python, C#, HTML, CSS, OCaml

Game Engine/Framework: Proficient in Unity and PyGame (Python), familiar with LÖVE 2D (Lua)

Development & DCC Tools: GitHub, Blender, Maya, Adobe Photoshop, Adobe Premiere, Microsoft Office