# Ryon Sajnovsky

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### **EDUCATION**

**Northeastern University** 

Boston, MA

Master of Computer Science, GPA: 3.97 / 4.0

Sep. 2022 – Aug. 2024

California Western School of Law

San Diego, CA

J.D., Cum Laude, GPA: 3.41 / 4.0

• Passed MA 2022 Bar Exam: 316 / 270

Sep. 2019 – Dec. 2021

#### **TECHNICAL SKILLS**

Programming Languages: Python, C++, Java, Swift, C, SQL, GLSL, HTML, CSS

Frameworks and Libraries: OpenGL, SDL, Qt, Bootstrap

Tools: Git, GitHub, Visual Studio Code, Xcode, MySQL, MongoDB

Skills: Data Structures and Algorithms, Object-Oriented Programming, 3D Graphics, Machine Learning, iOS App Dev

#### **PROJECTS**

### **Particle System with Optimizations** | *Northeastern University*

Jul. 2024 – Aug. 2024

- Developed a particle simulator emitter utilizing C++, GLSL shaders, and OpenGL.
- Implemented instancing to reduce the number of draw calls sent to the GPU by 99.99%.
- Implemented the Gribb-Hartman method for frustum culling to reduce particles rendered by 30%.

## **Interactive Terrain Rendering** | *Northeastern University*

Jan. 2024 – Apr. 2024

- Developed a real-time terrain rendering system using C++, GLSL shaders, and OpenGL.
- Implemented heightmap-based terrain generation with texture sampling to simulate realistic landscapes.

## C++ Game Engine for Dynamic Maze Creation | Northeastern University

Jan. 2024 – Apr. 2024

- Utilized data-driven design principles to enable flexible scene loading and reusability.
- Developed a Python and a Tkinter-based GUI for intuitive maze creation and scene management.

#### **Server-Based File Storage System** | *Northeastern University*

Sep. 2023 – Dec. 2023

- Utilized C to develop a file storage system capable of transmitting and storing files.
- Utilized socket programming to send requests and files to the server and back to the client.
- Implemented mutexes to handle concurrent user requests, ensuring data integrity and preventing data corruption.

#### **EXPERIENCE**

**Student Volunteer** SIGGRAPH 2024

Denver, CO

Jul. 2024 – Aug. 2024

- Assisted attendees in the VR Theatre, guiding them through the setup and use of VR headsets.
- Networked with industry professionals and participated in educational sessions on advanced graphics techniques.

# **Summer Learning Program Mentee**

Remote

The Academy Software Foundation

Jun. 2024 – Aug. 2024

Completed courses in Python for Maya, Maya Basics, and Machine Learning, applying new skills to projects.

# **Lead Graduate Teaching Assistant**

Boston, MA

Northeastern University

May 2023 - Aug. 2024

- Supported courses in Data Structures and Algorithms, Foundations of CS, and Object-Oriented Programming.
- Graded over 20 assignments weekly, providing detailed feedback to reinforce key programming concepts.
- Conducted weekly office hours, assisting over 50 students with debugging and clarifying concepts.

#### Attorney

Boston, MA

Northeast Legal Aid

Jun. 2022 - Sep. 2022

Analyzed eviction cases, mediated disputes, and drafted legal documents to advocate for low-income tenants.