Isabella Conner

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Availability: April - December 2023

Education

Northeastern University, Boston, MA — Sep. 2019 – Present
Khoury College of Computer Sciences — Graduation May 2024
Candidate for a Bachelor of Science in Computer Science and Game Development
GPA 3.72/4.00
Relevant Coursework: Object-Oriented Design, Software Engineering, Building Game Engines, Computer Graphics, Introduction to Non-Interactive Rendering Techniques, Game AI, Computer Systems, Game Programming, Programming in C++

Technical Skills

Languages:	C++ 14, 17 | Java | GLSL | Python 3.x | R
Operating Systems:	Windows | Linux
Tools, Frameworks, & IDES:	OpenGL | Unity Engine/C# | SDL2 | VSCode | Spring Boot | Junit | Git

Work Experience

Priceline Rental Car and Protection Team, Norwalk, CT
Backend SWE Co-op — Jul. 2022 – Dec. 2022

- Designed new feature support for rental car delivery services with squad engineers. Implemented design into existing core listing and booking Java APIs.
- Developed gRPC API in Java to receive rental car availability, details, and booking from a new rental car partner. Wrote unit and integration tests with JUnit.
- Improved internal Java Spring Boot data-loading tool to load more locations for new rental car partners and deployed SQL scripts to raise locations loaded for target partner from ~50% to ~98%.

Mass General Brigham Enterprise Research IS, Somerville, MA
HPC Support Co-op — May 2021 – Dec. 2021

- Provided user consultations, training, and in-depth documentation for the Kubernetes GPU cluster at MGB, and instructions for using containerized environments with rootless Podman in the cluster.
- Improved existing and developed new user-facing R Shiny Apps and Python scripts that interacted with a MySQL database and allowed users to view cluster status updates, software available, and storage reports.

Personal and Academic Projects

Non-interactive Ray Tracer and Volume Rendering | *Academic Project* — Jul. 2022

- Built an offline ray tracer in C++ 14 that produced rendered, ray-traced ppm images. Supports rendering .obj files and spheres of different material types including metallic, matte, and transparent objects.
- Implemented additional volume rendering functionality using Perlin noise and ray-marching algorithm to and create cloud-like effects in ray-traced scenes.

Fruitnight game | *Academic Project* — Jan 2022 – Apr 2022

- Designed and programmed a 2D visual novel and JRPG game in Unity and C# in a team of five.
- Drew character art, wrote character dialogue trees, designed combat encounters, and programmed parts of the combat system and scenes.

3D Model Renderer with OpenGL | *Academic Project* — Feb. 2022 – Apr. 2022

- Built a real-time 3D model renderer in C++ 17/OpenGL and glsl vertex and fragment shaders that rendered .obj files with support for textures and normal mapping.
- Created a ppm image file parser and obj file parser in C++ to allow a variety of models and textures.
- Added simple user interaction with object rotation and zoom in/out keybinds.

Temple of Fate Game | *Academic Project* — Feb. 2021 – Apr. 2021

- Designed, greyboxed, playtested, and built out three levels of a 3D puzzle game in Unity and C#, including movement, physics, and teleportation.