

EXPERIENCE

WHITEOUT SOLUTIONS | SOFTWARE DEVELOPER OCT '21 - PRESENT

- Constructed computer vision tools and processing pipeline for wetland conservation analysis using Java and Spring.
- Developed a distributed file management system using Java that saved terabytes of storage space and accelerated testing.
- Built interactive VR simulations of LIDAR scans using C# and Unity.
- Prototyped a mesh volume calculator using React, three.js, Spring and MySQL.

KITWARE | COMPUTER GRAPHICS R&D INTERN MA

May '21 - Aug '21

- Spearheaded a WebApp for military-grade simulations using React.
- Collaborated on a scanner to import complex operation details from PDFs.

CORNELL CAPRA | RESEARCH ASSISTANT

JUN 19 - DEC 20

- Wrote HLSL shader examples that were featured in a published paper.
- Ported a novel graphics language into Unity to assess its commercial potential.
- Created a game engine from scratch as the first major test of the novel language.

CAPITAL ONE | Software Engineering Intern May 20 - Aug 20

- Engineered a tool to remediate customer data, reducing labor by 90%.
- Managed expectations of multiple stakeholders to deliver on tight deadlines.

PROJECTS

CLOUDLIGHT GAMES | INDIE GAME DEVELOPER

Jul '19 - Present

- Published 9 games with over 1000 views on the Itch.io platform.
- Implemented a pipeline to automatically compile and deploy games with Git.

PANIC PAINTER | GAME DEVELOPMENT TEAM

MAY 21

• Created a GLSL paint splatter shader and C# code for a 2D mobile game.

TERRAIN WORLD | GRAPHICS ENGINE TEAM

DEC '19

• Produced a graphics pipeline and procedural terrain simulation in OpenGL and C, with over 60 FPS on millions of vertices.

CONWAY'S SNAIL | LINGUISTICS SIMULATION

DEC '19

• Simulated Japanese historical linguistics using cellular automata.

EASY AUTHORIZATION | CAPITAL ONE HACKATHON

AUG '19

• Prototyped a VR banking interface in Unity with ML signature recognition.

FDUCATION

CORNELL UNIVERSITY

BACHELOR OF ARTS

Computer Science | May '21 Minor: Linguistics

KEY COURSES

Advanced Computer Graphics

Advanced Game Architecture

Computer Graphics

Computer Vision

Vision & Graphics Seminar

Linear Algebra

Java Programming (Honors)

Operating Systems

SKILLS

PROGRAMMING

Java • C# • C++ • Python

React • HTML • CSS • three.js

GLSL • OpenGL • WebGL

Spring • SQL

TOOLS

Git • JIRA • JetBrains

Unity • Unreal

LANGUAGES

English • Japanese • Spanish

ADDITIONAL

GLACIER CLIMBING

'22 - Present

Teaching mountaineering.

ART

'16 - Present

Creating linocut posters.

TEACHING ASSISTANT

'18 - '19

Led a 40 student honors Java lab.