

EDUCATION

Yale University
08.2019 - 05.2023

B.S. Computer Science (GPA 4.0/4.0)
VP of Engineering of UX Society at Yale, Design Chair of Yale Computer Society
Relevant Coursework: Algorithms, Data Structures, Systems Programming & Computer Organization, Advanced Topics in Computer Graphics, Discrete Mathematics, Linear Algebra & Matrix Theory

EXPERIENCE

Peabody Museum of Natural History
07.2020 - Present

Project Lead Developer ([GitHub repo](#))
→ Led the development of the COPIS3D client, a desktop application which controls a multi-camera photogrammetric 3D reconstruction system, using wxPython and OpenGL.
→ Improved rendering performance by migrating from fixed function to modern OpenGL using GLSL shaders and instanced rendering. Utilized the pub/sub model and MVC design pattern.
→ Designed and implemented features such as path generation, orientation controls, contextual property panel, and overhauled general interface and input controls to improve usability.

↪ *cont.*
06.2020 - 07.2020

Software Developer Intern
→ Developed and improved the viewport for a photogrammetry application using Python and OpenGL.
→ Familiarized with CAD software by researching FOSS such as PrusaSlicer, Slic3r, and PrintRun.
→ Practiced Agile and Scrum in 1-2 week sprints in a team of 3 developers. Learned C++.

Source Development Hub
06.2020 - Present

Data and Engineering Intern
→ Worked with a New Haven-based social enterprise to develop a data aggregation platform and a state database of affordable housing for the Connecticut Department of Housing.
→ Developed and automated a pipeline which extracted and geocoded 10,000+ housing program and subsidy records from unstructured datasets using Python into an SQL database.

NIST ITL
06.2018 - 04.2019

VR Research Intern
→ Developed accessible VR website to visualize 180+ glTF equation models in the [NIST DLMF](#) using A-Frame & three.js web frameworks and Oculus Rift, HTC Vive, & Google Cardboard VR systems.
→ Awarded the 2018 Outstanding Poster Presentation award. Youngest ever intern in mentor's lab.
→ Work presented at SIGGRAPH 2018 BoF "*Immersive Visualisation for Research, Science and Art*".

NIST ITL
01.2016 - 06.2017

Software Intern
→ Developed Python scripts to translate 1,300+ formulae from Mathematica to semantic LaTeX.
→ Co-authored "*Semantic Preserving Bijective Mappings of Mathematical Formulae between Word Processors and Computer Algebra Systems*," published in the proceedings of CICM 2017.

PROJECTS

Bulletin VR
10.2019

Developer and Designer ([Devpost project](#))
→ Developed VR message board website to share anonymous messages and tackle social anxiety using JavaScript, A-Frame WebVR framework, and Web Speech API. Designed logo and all assets.
→ Won the Best Gaming/VR Hack, out of 147 submissions and 400+ participants, at YHack 2019.

FTC Robotics
06.2017 - 06.2019

President and Senior Captain
→ Secured \$6,400+ via MSDE grant, funding STEM outreach programs for underrepresented students.
→ Led team through engineering design process, designed and tested a nationally-competing robot.

Digital Sign-In
12.2016 - 06.2017

Lead Developer
→ Developed Android app to replace school's manual sign-in system using Android Studio and ADB.
→ Processed, verified, and presented schedule data of 1,000+ students using Java.

SKILLS

Languages
Tools

C++, C, Python, Java, JavaScript, Scheme, HTML, CSS
UNIX, Git, OpenGL, GLSL, wxWidgets, Visual Studio, LaTeX, Illustrator, InDesign, Fusion 360