

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, Object-Oriented Programming, Discrete Mathematics, Linear Algebra and Matrix Theory, Systems Programming, Operating Systems

EXPERIENCE

Peabody Museum of Natural History
07.2020 - Present

Project Lead Developer (copis3d.org)
→ Developed and maintained the COPIS3d client, a desktop app which controls a multi-camera photogrammetric 3D reconstruction system. Worked with Python, wxPython and PyOpenGL.
→ Initiated and led the migration from fixed-function OpenGL to the modern OpenGL core profile.
→ Developed camera path generator, overhauled viewport controls, navigation, and rendering.
→ Evaluated project plans and direction with the museum's Head of Biodiversity Informatics.

↪ *cont.*
06.2020 - 07.2020

Software Developer Intern
→ Developed 3D visualizer for a multi-camera five-axis gantry. Used Python and learned OpenGL.
→ Identified CAD software paradigms, and examined source code of PrusaSlicer and Slic3r.
→ 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 for extracting and geocoding 7,000+ housing program and subsidy records from unstructured datasets using Python into an SQL database.
→ Pitched and established data processing methodologies to executives and data team researchers.

NIST ITL
06.2018 - 04.2019

VR Research Intern
→ Developed WebVR app to visualize 180+ 3D models in the NIST Digital Library of Mathematical Functions using A-Frame & three.js frameworks. Used Oculus Rift and HTC Vive VR systems.
→ Awarded the 2018 Outstanding Poster Presentation award. Youngest ever intern in mentor's lab.
→ Work presented at SIGGRAPH 2018 talk "*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.com/software/bulletin-fq1kaz)
→ Developed VR bulletin board website to share anonymous messages and tackle social anxiety.
→ Won the Best Gaming/VR Hack at YHack 2019, out of 147 submissions and 400+ participants.
→ Worked with A-Frame WebVR and Web Speech API. Designed logo and all promotional assets.

FTC Robotics
06.2017 - 06.2019

President and Senior Captain
→ Led team through engineering design process. Designed and tested a nationally-competing robot.
→ Awarded MSDE grant of \$6,411 to fund STEM outreach programs for disadvantaged K-12 students.

Digital Sign-In
12.2016 - 06.2017

Lead Developer
→ Developed Android app to digitize student sign-in and staff email system for high school library.
→ Processed, verified, and presented schedule data of 1,000+ students. Used Java, ADB, and Git.

SKILLS

Languages
Software

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