

Owen Fahey

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EXPERIENCE

Jason Salavon Studio

Software Developer

Chicago, IL

June 2022 – Present

- Leading system design and engineering on large-scale computational art pieces, contributing 10,000+ lines of Python and 5,000+ lines of JavaScript to the art-research lab's codebase.
- Developing an internal library of image and video processing tools using OpenCV, diffusion models, and parallel computing, facilitating the creation of animations with billions of pixels per frame.
- Engineering a web application with a highly customized map interface using React.js, Leaflet, Apache, and Node.js that receives thousands of monthly visitors.

University of Chicago Computer Science Department

Research and Teaching Assistant for Professor Gordon Kindlmann

Chicago, IL

May 2023 – Present

- Working to improve the effectiveness of data visualizations by accounting for differences in color perception.
- Comparing the efficacy of techniques aimed at rapidly and accurately modeling an individual's color perception.
- Serving as a teacher's assistant for Data Visualization, a class with 50+ students.

Lexset.ai

Software Engineering Intern

Brooklyn, NY

January 2022 – June 2022

- Added dozens of client-requested features to Blender-based 3D scene generator, facilitating the creation of photorealistic synthetic image datasets to improve downstream computer vision tasks.
- Created a dataset of 38,000 synthetic sign language images, instrumental in securing the company's largest client.
- Automated asset and image tagging, reducing processing time by 75%.

EDUCATION

The University of Chicago

Bachelor's in Computer Science with Honors & Bachelor's in Philosophy

Chicago, IL

Expected June 2024

- CS GPA: 3.91
- Selected Coursework: Honors Algorithms, Software Development, Database Systems, Computer Systems

National Outdoor Leadership School

Fall Semester in the Rockies

Lander, WY

August 2021 – November 2021

- Developed teamwork, leadership, and first responder skills on multiple wilderness expeditions.

Test Scores: SAT: 1590, ACT: 36, American Invitational Math Exam Invitee (top 5% of AMC 12 scores)

SKILLS

Languages: Python, JavaScript, C, Rust, HTML, CSS, Scala, SQL

Python Libraries: PyTorch, OpenCV, NumPy, PIL, Django

Other: Linux, CI/CD, Git, Github, Bash, FFmpeg

PROJECTS

Scientific Visualizations Tools · C, WebAssembly

January 2024 - Present

- Creating visualization tools for topographic mapping, multithreaded volume rendering, and vector field imaging.
- Adapting C-based visualization tools for web use with WebAssembly and WebAssembly System Interface.

Voxel Subdivider · JavaScript, Three.js

September 2023

- Developed a web application to interactively subdivide a single voxel into an intricate voxel model.
- Implemented the logic to convert glTF 3D models into voxelized form.

Relational Database Storage Manager · Rust

January 2023 – March 2023

- Engineered a high-performance storage manager, enabling efficient queries, concurrency, and durability.
- Implemented query functions such as AGGREGATE, GROUP BY, and JOIN from scratch.