

Owen Fahey

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EDUCATION

The University of Chicago

Chicago, IL

Bachelor of Science in Computer Science & Bachelor of Arts in Philosophy

Expected June 2024

- CS Major GPA: 3.9
- Specialization: Machine Learning
- Selected Coursework: Honors Algorithms, Computer Systems, Databases, Programming Languages, Discrete Math, Data Visualization, Data Science, Computational Geometry, Probability, Deep Learning Systems (TTIC)

National Outdoor Leadership School

Lander, WY

Fall Semester in the Rockies

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, TypeScript, C, Rust, HTML, CSS, Scala, SQL (Postgress)

Python Libraries: OpenCV, NumPy, PIL, Matplotlib, scikit-learn, PyTorch, Flask, bpy

Web: React.js, Next.js, Node.js, D3.js, NPM, Apache, Web Components, Express.js, Three.js

Other: Git, Github, Linux, FFmpeg, JSON, YAML, Bash

EXPERIENCE

Jason Salavon Studio

Chicago, IL

Software Developer

June 2022 – Present

- Spearheading system design and engineering on two art pieces created using in-house AI models, contributing 10k+ lines of code as the lead developer to the studio's codebase.
- Architecting an animation pipeline leveraging parallel computing, diffusion models, and GPT-3 API integration, enabling the production of massive animations with billions of pixels per frame.
- Collaborating with designers to quickly transform Figma mockups into functional software prototypes.
- Engineering a web application with a complex map interface using React.js, Leaflet, Apache, and Node.js that receives tens of thousands of monthly visitors.

University of Chicago Computer Science Department

Chicago, IL

Research Assistant to Professor Gordon Kindlmann

May 2023 – Present

- Working to improve the effectiveness of data visualizations by accounting for differences in color perception.
- Devising numerical algorithms to create tailored, perceptually uniform color spaces by calibrating CIELAB models.
- Constructing an application for research studies to assess the efficacy of techniques aimed at rapidly and accurately modeling an individual's perception of color.

Lexset.ai

Brooklyn, NY

Software Engineering Intern

January 2022 – June 2022

- Enhanced a Blender-based 3D scene and synthetic data generator with dozens of client-requested features.
- Secured firm's largest client by producing a tech demo dataset of 38,000 synthetic American Sign Language images.
- Automated HDRI classification and tagging, reducing processing time by 75%.

PROJECTS

Voxel Subdivider · JavaScript, Three.js

September 2023

- Developed a web app 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

- Built a functioning storage manager for a relational database using heap files.
- Designed pages with slotted storage to maximize space efficiency.
- Implemented query operators such as AGGREGATE, GROUP BY, and JOIN from scratch.

Music Overlap Analyzer · Python, Flask, OAuth, scikit-learn

April 2022

- Developed an app to identify songs and artists mutually listened to by two users.
- Employed k-means clustering to generate a Spotify playlist based on overlapping musical preferences.