

Owen Fahey

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EXPERIENCE

Jason Salavon Studio

Chicago, IL

Software Developer

June 2022 – Present

- Spearheading system design and engineering on multiple fine art pieces created using in-house GAN and style transfer models, contributing 10k+ lines of Python and 5k+ lines of JavaScript to the studio's codebase.
- Developing an advanced internal library of image processing tools using OpenCV, diffusion models, and parallel computing, facilitating the creation of 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 highly customized map interface using React.js, Leaflet, Apache, and Node.js that receives 10k+ 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.
- Refining the CIELAB model to produce perceptually uniform color spaces tailored to individual users.
- Constructing an application for research studies to assess the efficacy of techniques aimed at rapidly and accurately modeling an individual's color perception.

Lexset.ai

Brooklyn, NY

Software Engineering Intern

January 2022 – June 2022

- Enhanced a Python and Blender-based 3D scene and synthetic data generator with dozens of client-requested features.
- Secured firm's largest client by creating a dataset of 38,000 synthetic American Sign Language images as a tech demo.
- Automated asset and image tagging, reducing processing time by 75%.
- Monitored and debugged CoreWeave GPU instances ensuring optimal performance in machine learning workflows.

EDUCATION

The University of Chicago

Chicago, IL

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

Expected June 2024

- CS GPA: 3.9
- Selected Coursework: Honors Algorithms, Software Development, Computer Systems, Database Systems, Probability, Deep Learning Systems, Data Visualization, Data Science, Mathematics of Machine Learning, Computer Vision

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, C, Rust, HTML, CSS, Scala, TypeScript, SQL

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

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

Other: Linux, CI/CD, Git, Github, REST, JSON, YAML, Bash, FFmpeg

PROJECTS

Every Game of Tic Tac Toe All At Once · Python, JavaScript

August 2023

- Created a website displaying all 255,168 games of Tic Tac Toe playing simultaneously.
- Implemented a search feature allowing users to quickly locate and view any specific game.

Relational Database Storage Manager · Rust

January 2023 – March 2023

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

Programming Language Interpreters · Scala

October 2022

- Engineered an interpreter for the simply-typed lambda calculus, complete with a scanner, parser, and evaluator.
- Implemented an interpreter for a novel language with mutable memory, exceptions, and type checking / melding.

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.