

Jonathan Xu

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Skills

Languages Python, C/C++, JavaScript, HTML/CSS, Java
Technologies Git, Bash, Docker, Unix, AWS, GCP

Frameworks ReactJS, NodeJS, Heroku, PostgreSQL,
GraphQL, React Native

Experience

Hebbia Inc 🌐

FULL STACK SOFTWARE ENGINEER

San Francisco, California

Jan 2021 - Mar 2021

- Designed and developed the web dashboard from scratch using ReactJS and Antd
- Increased search speeds by 50x** by implementing semantic document search using dense vector clustering
- Architected the PostgreSQL database schema, powering search over **250K+ documents**

Fractal Computers 🌐

SOFTWARE ENGINEER INTERN

Boston, Massachusetts

Apr 2020 - Aug 2020

- Reduced Azure costs by 70%** by automating resource management for virtual machines, disks, and users
- Revamped the PostgreSQL schema and implemented GraphQL APIs, **cutting query latency by 50%**
- Migrated the Flask backend webserver to a Heroku CI pipeline, **speeding up tests and deployment by 5x**
- Built a mobile application with **React Native & Redux** to enable container app streaming directly to Android & iOS

Trofi 🌐

FOUNDER

Toronto, Ontario

Apr 2020 - Aug 2020

- Decentralizing food distribution** through a group buy platform that connects local farmers directly to consumers
- Received \$40,000 in pre-seed funding, a **\$1M valuation cap**, and 3rd place out of 500+ applicants at **Mozilla Builders**
- Captured **5 digit revenue** through the platform in 4 weeks, with **1K+ unique customers** and 400+ unique items sold
- Conducted **20+ interviews** with farmers, food distributors, and end users to optimize product market fit

Competitions and Projects

COMPETED AT 40+ HACKATHONS 🌐

Polygon 🌐

PERSONAL PROJECT

Apr 2021

- Coded a video player with **1K+ users** that enables interaction with text and objects within the videos themselves
- Created a cloud pipeline that used FFMPEG, computer vision and speech to text to **process and serve 1.5TB of video**
- Collaborated with multiple YouTubers and received **\$50,000** in funding from Backend Capital

Noisy 🌐

PERSONAL PROJECT

Jan 2021

- Developed a Discord + Telegram bot that generates music on the fly using the **OpenAI Musenet** deep neural network
- Created the automated backend powering the live generation and playback of **15k songs** monthly to **200k+ users**

Hack the North - Audite 🌐

FIRST PLACE OUT OF 1200+ HACKERS

Sep 2018

- Built a **speech transcription** tool with visual location cues for people with hearing impairments
- Utilized Raspberry Pi, Arduino, ultrasound, and **real-time speech to text** to annotate speech over the source in AR

Education

University of Waterloo

BACHELOR OF SOFTWARE ENGINEERING

4.0 GPA

Sep 2019 - Apr 2024 (expected)

Dean's Honor List, Cohort Academic Representative