

Lefan Hu

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Skills

Programming	Python, C/C++, Java, HTML/CSS, JavaScript, VHDL, Matlab
Technologies	Pandas, PyTorch, Pillow, Sequelize, MongoDB, Postgre, Docker, Docker Swarm, AWS (Lambda, API gateway, EC2, Sagemaker)
	React, Nextjs, Nginx, Spring Boot, GCP, GKE, Pub/Sub, Cloud Functions, Linux, Shell (Bash/Zsh), Excel.
Soft Skills	Time Management, Teamwork, Communication, Problem-solving, Presentation.

Work Experience

CIENA Corporation

Ottawa, ON

Automation Tools Development Co-Op

January 2024 - April 2024

- Developed major releases of the extract logs application used by over 100 engineers
- Created **Splunk** queries generate search queries for well known signatures of known and recognizable errors on hardware devices
- Built database for audio sentiment analysis by a combination of scripting, parsing, and web scraping from various sources
- Extensive use of **Python** and **JupyterLab** for automation and general parsing of complex log files

TELUS Corporation

Ottawa, ON

Software Developer Co-Op

May 2023 - August 2023

- Contributed to major tool - auto-callout system (ACMP) for **hundreds** of field technicians. This tool increases reliability of TELUS infrastructure by reducing response times to tower outages **from hours down to seconds**.
- Developed POC tool for use across the TELUS RCOE team which was demo-ed to VP
- **Technical Skills:** Java, **GCP**, **GKE**, Cloud Functions, Cloud **Pub/Sub**, CI&CD, **Spring Boot**, Python, Jinja2, Docker, **Docker Swarm**, Sequelize, **Nginx**, LDAP

Projects

Stable Diffusion | [↗](#)

Ottawa, ON

Stable Diffusion XL LORA Adapter | Image Generation

January 2024 - May 2024

- **LORA adapter** trained on **AWS** G4DN GPU instance for generating taylor swift images using SDXL model
- Hosted on **Hugging Face** Serverless API platform
- Built using **Transformers**, **Huggingface Serverless API**, **Stable Diffusion** and **Next.js**
- **Technical Skills:** Cloud Computing, ML, LORA, Nextjs, Cloudflare, SSL

Hive-HQ - Hackathon Winner | [↗](#)

Ottawa, ON

Hack The North 2021 | Best Use of Google Cloud | Best Entrepreneurship Hack |

Sept. 2021 - Sept. 2021

Managed with Git

- An AI-powered, multi-target tracking system that identifies high traffic areas in public spaces. The project empowers small business owners by bringing AI analytics to small business owners.
- **YOLOv5** model was loaded onto **PyTorch** to recognize and annotate individuals
- Built using **Google Cloud**, matrix perspective transformations, **React.js**, **OpenCV**, **Pytorch**, and **YOLOv5**

Interqu Interview Platform | [↗](#)

Waterloo, ON

Interqu

June 2023 - Now

- An interview practicing platform that uses AI to analyze speech, expression, and general flow of a mock interview
- **AWS Statemachine** used to manage various post-processing states using Lambda functions
- **Angular** front-end, back-end processing handled by: **AWS SAM** - (Statemachine, Lambda, API gateway, graphql), **PyTorch**, ChatGPT
- Built using **Nginx**, **Docker**, **AWS** - (**Lambda**, **Statemachine**, **Stepfunctions**, **SAM**), **Pytorch**, **ChatGPT**

Arbitrage | [↗](#)

Ottawa, ON

Arbitrage | High Volume Trading

April. 2024 - Now

- High frequency trader using **Oanda API** & **IBKR Streaming API**
- Bot written in **Typescript** for managing trades
- **Technical Skills:** Docker Networking, WebSockets, IBKR Gateway, Typescript, Algorithms, HFT.

Education - University of Waterloo

University of Waterloo - 3rd Year

Waterloo, Canada

Bachelors in Computer Engineering

Sept 2021 - April 2027

- **Current Courses:** Quantum Physics 1, Communication Systems, Digital Hardware Systems, Real-Time Operating Systems, Analog Control Systems