David Hu-Liu

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TECHNICAL SKILLS

Languages: Java, C/C++, Python, Racket, PostgresSQL, MongoDB, JavaScript, HTML/CSS
Frameworks: React, Next, Nest, Node, Express, Flask, JQuery, RestAPI, Tailwind, Bootstrap

Developer Tools: Git, Google Collab, VS Code, Visual Studio, PyCharm, Docker, Figma, Excel
Libraries: pandas, NumPy, Matplotlib, Keras, OpenCV, Jupyter

EXPERIENCE

Software Developer/Prompt Engineer | *DataAnnotations* — *Aug 2024 — Present | Toronto*
- **Engineered** and Trained LLM's to produce higher quality code across **5000+** lines per day, distributing annotations to **10k+ developers** for review, through **Achilles Pillars** Response Analysis and prompt engineering.
- **Writing** and testing software apps and features using python libraries like **Pytorch, Numpy, Tensorflow**, react frameworks like **Next.js and Bootstrap**, **Restful API's**, and databases like **SQL, MongoDB**
- **Training** LLM's on their ability to complete **Leetcode/Hackerrank** style questions in **Java, Python, C, and C++**

Full-Stack Engineer | *Aview International* — *May 2024 — Sept 2024 | Toronto*
- **Developed** and Designed a comprehensive **AI video editor tool** that **300+ famous** content creators leverage for customized videos (**6+** Integrated pages, **10+** Additional features)
- **Restructuring** main Full-stack app and Admin app, through addressing **30+** major bugs, **15** new web pages, **35+** component additions using **Next.js, Nest.js, Mongoose, Redis,** and **RestfulAPI's** with **Postman**
- **Proposed** and initiated integrating lip sync and **deep-fake ML**, handling **resource** hosting infrastructure, **cloud** and **database** management using **Pytorch, Keras, matplotlib**

Sales Engineer | *Aview International* — *May 2024 — Sept 2024 | Toronto*
- **Led** the initiative to take on multiple clientele, landing **3 major content creators** at **Collision2024** networking conference; **Loren Gray**, social media superstar/singer(**80MIL+** Followers). Hafu Gao(**8MIL+** on YT). SupaHotFire(**500k+** on YT)
- **Partnering** with client outsourcing companies like **SAAS Founders** to discuss automating of client attraction process, with potential of **30% increase** in clientele, using search engine outreaching algorithms.

Data Science Student | *Harvard Pre-College* — *June 2023 - July 2023 | Cambridge*
- **Proposed** a Grayscales strategy, yielding **98% accuracy** by epoch 10 with training data for CIFAR100 dataset
- **Leveraged** Principles of CNN(loss function, activation function, convolution layers, pooling, etc) to train a deep neural network classification model on **60,000+** data points using **Tensorflow, Numpy, and Pytorch**
- **Spearheaded** a team of 4, to achieve the **best neural network** in our Harvard Pre-College class

PROJECTS

Project Klean 🔗 | *AI, Microsoft CodeBERT, AWS, Google Cloud*
- **Engineered** an enterprise-level digital waste, code cleaning solution achieving **60%** reduction in computation waste, **45%** decrease in carbon emissions across projects hosting on **AWS/Google Cloud**
- Leverages **AI refactoring** and **Microsoft CodeBERT**, optimizing over **10 million lines** of code at maximum capacity for firms and institutions

Vebate 🔗 | *Best use of GPT-4 @ MakeUC Hackathon* | *Node.js, Next.js, React, AWS, GPT-4 API*
- **Utilized Node.js, Next.js, React, JS, AWS poly/GPT-4 API** to create an interview-style voice interactive chatbot that achieves **98%** reported improved **interview confidence**, and supports **25+ languages**
- **Designed** a custom prompting system which improved **interview retention** time by **40%** and reduces prompting hassle by **1100 characters** compared to plain GPT-4
- **Restructured** server hosting to increase response loading speed by **30%**

HandPilot 🔗 | *1st Overall @ York Region Hackathon* | *Python, OpenCV, Mediapipe, Pyinput*
- **Led** a team of 3 to pitch a hand-controlled, motion detected virtual mouse, addressing Carpal Tunnel, Fractures, Tendonitis, etc, with a **95% success rate** in improved patient autonomy
- **Implemented** Python Libraries like **OpenCV, Mediapipe, Pyinput,** for camera detection and mouse inputs to increase user productivity by **80%**
- **Branded** and **Prototyped** Mediapipe functionality and .EXE conversion using only **34MB** of needed memory

EDUCATION AND CERTIFICATIONS

University of Waterloo — *Waterloo, ON*
Bachelors of Computer Science and Business Administration — *Sept 2023 – Present*

Harvard Pre-College Program | *Mathematical Elements of Data Science and Artificial Intelligence*
Udemy | *The Complete 2023 Web Development Bootcamp*