Bill (Yuan Hong) Sun

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EXPERIENCE

GUIDEPOINT | AI Engineer III
Dec 2025 - Present | Toronto, ON / New York, NY

- Developing AI workflows and evaluation for transcription

KINAXIS | Machine Learning Engineer II
Feb 2022 - Nov 2025 | Toronto, ON / Ottawa, ON

- Worked in cross-functional teams to integrate ML and agentic AI solutions into the **Maestro** supply chain orchestration platform.
- Built DemandAI by applying and deploying machine learning models in supply chain demand forecasting using Python & Kubernetes.
- Built Maestro Chat - A LLM-powered chatbot and Retrieval Augmented Generation (RAG) system for answering questions software and user data, enabling a copilot experience for supply chain planning.
- Built an AI agentic framework for supply chain decision-making.
- Improved RAG retrieval and generation accuracy by over 30% through agent improvements, using Mosaic AI and LangChain tools.
- Developed, designed, and scaled machine learning pipelines and infrastructure to onboard new customers in retail, manufacturing, and supply chain. Helped reduce cloud costs by over 90%.

UNIVERSITY OF TORONTO | Machine Learning Team Lead
Sep 2020 – Dec 2024 | Toronto, ON

- Working with Dr. **Kang Lee** of the Centre of Smart Learning to develop ML and LLM methods for assessing mental & physical health conditions.
- Leading the machine learning research team. Supervising undergrad research students on machine learning and data analysis projects.
- Led and developed a web application (in Django and React) for hosting machine-learning-based health assessments and for data collection.
- Leading a cross-functional R&D team in designing and developing an LLM video chatbot web application powered by OpenAI (implemented using LangChain, React, and TypeScript) for testing mental health therapy and assessment using Large Language Models.
- First-authored publications in academic journals and conferences.
- Supervised undergraduate research students and research courses.

NURALOGIX | Data Science Software Developer
May 2019 – Aug 2020; Jul 2021 - Jan 2022 | Toronto, ON

- Contributed to the development of the **Anura** health monitoring app.
- Developed internal tools and ETL pipelines in Python and Jenkins to automate data collection, processing, and cleaning.
- Developed a full-stack web application for testing survey-based machine learning models. Includes a microservice back-end (using AWS Lambda), a Flask front-end, and PostgreSQL database.
- Helped prepare multiple customer demos of proof of concept products.

PUBLIC HEALTH ONTARIO | Data Scientist Intern
Sep 2020 – Dec 2020 | Toronto, ON

- Applied Natural Language Processing techniques to develop a sentiment model that detects Tweets containing misinformation on vaccines.
- Developed an interactive dashboard and a data pipeline in Python Flask, Dash, PostgreSQL, and Heroku that scrapes and analyzes new Tweets daily and displays vaccination misinformation statistics.

EDUCATION

GEORGIA TECH
MSc in Computer Science
Major in Machine Learning
2023 – 2025

UNIVERSITY OF TORONTO
BASc in Engineering Science
Major in Machine Intelligence
Minor in Engineering Business
2016 – 2021

MA in Applied Psychology
major in Developmental
Psychology and Education
2021 – 2023

SKILLS

PROGRAMMING
Python • Java • SQL • C/C++/C#
HTML/CSS/JavaScript • R

FRAMEWORKS / LIBRARIES
Pandas • Spark • Argo • Airflow • Keras
TensorFlow • Sklearn • PyTorch • NLTK
LangChain • Flask • Django • React

OTHER TECHNOLOGIES
Git/GitHub • AWS • MS Azure • Docker
Kubernetes • Terraform • Databricks
Linux / Unix • REST / gRPC • API / Microservices • ML / MLOps • Deep learning / Neural networks • NLP • LLMs • LLM agents • RAG • OpenAI • VertexAI

PUBLICATIONS

[1] Y. H. Sun and et al. A novel machine learning approach to shorten depression risk assessment for convenient uses. *Journal of Affective Disorders*, 2022.

[2] Y. H. Sun, H. Luo, and K. Lee. A novel approach for developing efficient and convenient short assessments to approximate a long assessment. *Behavior Research Methods*, 2022.

[3] H. C. Yang, Y. H. Sun, and K. Lee. Concise multi-class anxiety disorder risk assessment: A novel advanced machine learning approach. *Journal of Anxiety Disorders*, 2025.