

# Bill (Yuan Hong) Sun

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## EXPERIENCE

### GUIDEPOINT | AI ENGINEER III

Dec 2025 - Present | Toronto, ON / New York, NY

- Building a Databricks LLM/AI workflow and AI judge for multi-language call transcription, supporting the expert network platform.

### KINAXIS | MACHINE LEARNING ENGINEER -> AI 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 | LEAD ML/AI RESEARCHER

Sep 2020 - Dec 2025 | Toronto, ON

- Worked with Dr. **Kang Lee** of the Centre of Smart Learning to develop ML and LLM methods for assessing mental & physical health conditions.
- Led a research team of 10+ undergrad and graduate research students on multiple machine learning, data science, and AI projects.
- Led and developed a web application (Django, React) for hosting machine-learning-based health assessments and for data collection.
- Led a cross-functional R&D team in developing an LLM video chat application powered by OpenAI (LangChain, React, TypeScript) for mental health therapy and assessment.
- Developing an emotionally-aware AI math tutor application.
- 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 that scrapes and analyzes new Tweets and displays vaccine misinformation statistics.

## EDUCATION

### GEORGIA TECH

MSc IN COMPUTER SCIENCE

MAJOR IN ARTIFICIAL INTELLIGENCE

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

AI agents • RAG • OpenClaw • Cursor

## 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.