Fang Xi Lin, PhD

438-488-8120 | email@fangxilin.com | linkedin.com/in/fangxilin | github.com/quantumfx

EXPERIENCE

Ingram Micro Inc.
AI / Machine Learning Engineer

Nov 2023 – Present
Toronto, Canada

- Conceptualized, developed and deployed scalable generative agent models via APIs, saving company 7.5 full-time employee hours annually with 14,000 requests annually to API.
  - **Stack**: GCP, Vertex AI, AlloyDB BigQuery, Gemini, Agentic Framework, RAG, Vector Search, Python, FastAPI, Docker, Gradio
- Designed the architecture and led the development of conversational AI engine for $50B business unlocking annual opex savings 15,000 hrs.
- Engaged business, product, engineering, and UI/UX stakeholders, presenting technical insights to Global Data and UI/UX teams to drive strategic alignment.
- Mentored interns in developing production-quality models and code.

Fanstories
Chief Data Scientist – Project Contract

Apr 2023 – Aug 2023
Toronto, Canada

- Developed and deployed an LLM-based personalized content recommender for AI influencer chatbots, scaling to over 1M monthly users.
  - **Stack**: AWS, PostgreSQL, ChromaDB, Langchain, RAG, Chain-of-thought, LlamaIndex, OpenAI, FastAPI
- Extracted, cleaned, and labeled user chat data from over 1M monthly users to fine-tune recommender model.
- Produced risk assessment reports on model resilience and performance to ensure continuity across evolving LLM API integrations.

Blossom.team
Data Scientist

Aug 2022 – Mar 2023
Remote

- Led development of an AI Coach chatbot, democratizing executive coaching for 10,000+ users by reducing costs from over $100 per hour to approximately $0.10 per conversation.
  - **Stack**: AWS, SageMaker, MongoDB, Langchain, LlamaIndex, OpenAI, HuggingFace, ReAct, Chain-of-thought, RAG, spaCy, nltk, Pandas, FastAPI, Docker
- Developed and deployed sentiment analysis, summarization, conversation and user insights models of coaching session transcripts using NLP and LLMs.

Canadian Institute for Theoretical Physics
Researcher

Jan 2017 – Feb 2023
Toronto, Canada

- Analyzed, simulated, and modeled TB-sized multi-dimensional data and time series data with statistical methods.
  - **Skills**: Python, C++, pandas, pytorch, tensorflow, Keras, scipy, scikit-learn, matplotlib, big data analysis, massively parallel computing
- Co-developed 'plind.py', a public Python package for a novel method for numerical integration.
- Presented research findings at international conferences including in United States, India, Germany, and China.

EDUCATION

University of Toronto
Doctor of Philosophy, Physics

Toronto, Canada
June 2023

- Delivered seminars and worked on ML projects as part of the Humans Learning Machine Learning group.

University of Cambridge
Master of Advanced Studies, Applied Mathematics

Cambridge, United Kingdom
May 2016

McGill University
Bachelor of Science, Honours Math & Physics

Montreal, Canada
June 2014

- President of the McGill Society of Physics Students (2013–2014)

CERTIFICATIONS, SKILLS & INTERESTS

Certifications: ML Engineering for Production (MLOps) (*Coursera, 2023*), Data Science (*SciNet Consortium, 2021*), Scientific Computing (*SciNet Consortium, 2017*)
Skills: NLP, LLM, Exploratory Data Analysis, Model Deployment, Cloud Architecture, Conversational AI, Big Data Analytics, Data Visualization, Experimental Design
Interests: Swing dancing, Drumming, Foraging