

Mohamad Ahmad

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WORK EXPERIENCE

BLUEGEM.AI (4 employee startup)

Toronto, ON

Co-founder, Lead Machine Learning Engineer

Jun 2023 –

- Spearheaded the development of cutting-edge machine learning (ML) solutions, leveraging advanced **fine-tuning** techniques (**PEFT**, **LoRA**) to deliver significant improvements in model performance and scalability for diverse industries.
- Orchestrated the creation of **70+ technical courses**, training **10,000+ global learners** across ML, statistics, and mathematics, empowering them to grasp complex state of the art ML techniques.
- Provided end-to-end ML consulting, from data preprocessing to **model deployment**, for clients across sectors like finance and transport, consistently exceeding performance benchmarks and optimizing inference speeds by up to **40%**.
- Delivered in-demand professional workshops on **Python**, **R**, PowerBI, and ML, cementing BlueGem's reputation as a leader in technical training and consulting.

GLOBAL AFFAIRS CANADA

Ottawa, ON

Machine Learning Consultant

Jan 2023 – Jun 2023

- Led high-stakes optimization initiatives, deploying **ML models** that efficiently processed and analyzed data from **100+** countries, driving strategic decision-making at a global scale.
- Engineered sophisticated statistical models and utilized **linear programming** to optimize global staffing configurations.
- Pioneered internal capacity building, training cross-functional teams in advanced ML methodologies, enabling them to autonomously apply predictive analytics in critical **global operations**.

SAXONY.CO (6 employee startup)

Ottawa, ON

Co-founder, CEO

Jun 2021 – Jan 2023

- Drove **exponential business growth** through data-driven financial strategies, implementing **Python-based automation** and **SQL** live integration to optimize logistics and manage over **5,000** customers with lightning-fast fulfillment.
- Directed all facets of business management, including tax structure optimization, financial planning, and logistics, transforming saxyony.co into a scalable and data-centric enterprise netting **multiple six figures**.

CAE

Ottawa, ON

Data Science Consultant

May 2022 – Sep 2022

- Designed and implemented **Markov Chain Monte Carlo** (MCMC) simulations for comprehensive failure and risk analysis across **20,00+ simulated environments**, increasing fault detection accuracy by **80%**.
- Applied **parallel computing** techniques to optimize model deployment, reducing runtime by **40%** and enhancing the overall efficiency of the risk classification pipeline.
- Successfully delivered tailored **staff training** on integrating ML into core operations, ensuring smooth adoption and long-term maintenance of deployed models.

EDUCATION

UNIVERSITY OF OTTAWA

Ottawa, ON

Honours Bachelor of Science (CO-OP)

Sep 2019-May 2024

Major in Mathematics; Minor in Statistics

Cumulative GPA: 4.0/4.0; Dean's List 2019-2024

Awards: **Shopify Entrepreneur Scholarship**, Dean's List (2019-2024), Victor Linis Math Scholarship, Startup Garage Entrepreneur Scholarship.

CORE COMPETENCIES

MACHINE LEARNING & AI: TensorFlow, Keras, PyTorch, Scikit-learn, XGBoost, Sagemaker.

DATA SCIENCE AND ANALYTICS: Python, R, Java, Pandas, MATLAB, SQL, PowerBI, advanced statistical modelling.

OPTIMIZATION & COMPUTING: CUDA, parallelization, distributed GPU computing, quantization, high-dimensional optimization, MCMC, RLHF, PEFT, LoRA.

LANGUAGE & SOFT SKILLS: Fluent in English and Arabic. Technical writing and presentation to shareholders, leadership, public speaking, mentoring, empathy, and embrace of challenge. Mental health awareness advocate.