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 saxony.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; Minors in Statistics and Psychology

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, Pandas, MATLAB, SQL, PowerBI, advanced statistical modelling.

OPTIMIZATION & COMPUTING: CUDA, parallelization, distributed GPU computing, quantization, high-dimensional optimization, MCMC, model fine-tuning.

LANGUAGE & SOFT SKILLS: Fluent in English and Arabic, beginner in French. Technical writing and presentation to internal shareholders, leadership, public speaking, mentoring, and empathy.