

Behzad Aminian

Machine Learning & MLOps Engineer

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HIGHLIGHTS

- **Professional Experience:** 5+ years
- **Machine Learning:** Generative AI, Large Language Models (LLM), Retrieval Augmented Generation (RAG), Deep Learning, Classification and Regression, Time Series Analysis, Statistical Analysis, Data Visualization, Anomaly Detection
- **MLOps:** CI/CD pipelines, REST API, Docker Containers, Model Monitoring, Version Control
- **Cloud Architecture:** AWS Certified Solutions Architect - Associate (SAA-C03), Deployment of Scalable Models on Cloud
- **Data:** SQL/NoSQL Databases, ETL Data Pipelines
- **Leadership:** Direct management of people and teams – Fit to Lead Training

SKILLS

- **Programming:** Python, C, SQL, MATLAB, Basic HTML/CSS
- **Machine Learning:** TensorFlow, PyTorch, LangChain, Scikit-learn, Hugging Face Transformers (BERT, GPT)
- **Databases and BI:** MongoDB, MySQL, Tableau, Power BI
- **MLOps & CI/CD:** Linux, Docker, GitHub Actions, GitLab, Kubernetes, FastAPI
- **Cloud Integration:** AWS services such as EC2, ECS, RDS, S3, Lambda, Sage Maker etc.

WORK EXPERIENCE

CORE Energy Recovery Solutions | Permanent Full-Time Vancouver, Canada
Machine Learning Engineer Jan 2022 – Present

- Directly managed a UBC graduate intern, ensuring project alignment, timely deliverables, and skill development.
- Led data collection campaigns, managing teams to gather and process data, boosting model accuracy by 4%.
- Built a Generative AI chatbot using LLM and RAG on company resources, resolving 60% of employee inquiries.
- AWS web app for deep learning model, cutting turnaround from 2 days to instant, saving 2 hrs/day in engineer time.
- Automated CI/CD pipeline for neural network data preprocessing, model training, deployment & monitoring.
- Created a regression model that saved \$300,000 and two years' worth of stocked raw material.
- Resolved critical manufacturing issue using feature engineering, reducing product failure rate by 30%.
- Developed automated BI pipeline for sensor data processing & visualization, cutting manual tasks by 6 hrs/week.

The University of British Columbia | Full-Time Vancouver, Canada
Graduate Research Assistant Sep 2019 – Dec 2021

- Designed mathematical optimization algorithm for custom cost functions, boosting model accuracy by 8%.
- Developed a numerical model for nonlinear aeroelastic deflection with 5% error.

TECHNICAL PROJECTS

- Literature Survey on Machine Learning in Software Defect Prediction – ([Article](#))
- Generative LLM Chatbot with RAG as an Internal AI Assistant – ([GitHub Repo](#))
- Web Application for FCH Performance Model Deployed on AWS ECS – ([GitHub Repo](#))
- Python Package for Multivariate Nonlinear Gradient Descent Curve Fitting – ([GitHub Repo](#) – [PyPI Repo](#))
- Facial Emotion Detection Using CNNs and Transfer Learning – ([GitHub Repo](#))
- Stock Trading Bot with Reinforcement Learning and Time Series Analysis for Investment Recommendations

CERTIFICATIONS

- AWS Certified Solutions Architect - Associate (SAA-C03) 2024
- Applied Data Science Certification @ Massachusetts Institute of Technology (MIT) 2022

EDUCATION

- **Master's Degree:** Applied Science and Engineering @ The University of British Columbia (UBC) 2022
- **Bachelor's Degree:** Applied Science and Engineering @ Amirkabir University of Technology (AUT) 2019