Behzad Aminian

Machine Learning & MLOps Engineer

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HIGHLIGHTS

- **Professional Experience:** 5+ years
- **Machine Learning:** Generative AI, Large Language Models (LLM), RAG +GraphRAG, Reinforcement Learning (RL), Deep Learning, Computer Vision, Regression, Time Series Analysis, Data Analytics & Visualization, Anomaly Detection
- **MLOps:** CI/CD pipelines, REST API, Containers, End-to-End Application Development
- **Cloud Architecture**: Certified AWS Cloud Practitioner, Deployment of Scalable Models on Cloud
- **Data:** SQL/NoSQL databases, data pipelines, ETL Processes

SKILLS

- **Programming:** Python, MATLAB, Visual Basics for Applications (VBA)
- **Machine Learning:** TensorFlow, PyTorch, LangChain, Scikit-learn, Hugging Face Transformers
- **Databases and BI:** MongoDB, MySQL, Tableau
- **DevOps & CI/CD:** Linux, Docker, GitHub Actions, GitLab, Kubernetes, FastAPI
- **Cloud Integration:** AWS services such as EC2, ECS, RDS, S3, Lambda, etc.

WORK EXPERIENCE

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

- Built Gen AI chatbot with LLM & RAG, resolving 70% of inquiries, adopted by 80% of employees within 2 months.
- Built AWS web app for predictive model, cutting turnaround from 2 days to instant, saving 2 hrs/day in engineer time.
- Built an 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.
- Developed automated BI pipeline for sensor data processing & visualization, cutting manual tasks by 6 hrs/week.
- Resolved critical manufacturing issue using feature engineering, reducing product failure rate by 40%.
- Built nonlinear regression capturing complex product behavior, enabling next-gen product with 2% efficiency gain.

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

- 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)
- Machine Learning in Software Defect Prediction; A Literature Survey **–** (Article)
- Snake Game Using Reinforcement Learning (GitHub Repo)
- Stock Trading Bot with Reinforcement Learning and Time Series Analysis for Investment Recommendations

CERTIFICATIONS

- AWS Certified Cloud Practitioner (CLF-C02) — 2024
- Applied Data Science Certification @ Massachusetts Institute of Technology (MIT) - Live Sessions — 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