Bahareh Salafian

DATA SCIENTIST

(Sponsorship Not Required)

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Career Summary

Data Scientist with over 5 years of experience delivering scalable machine learning and NLP solutions across government, healthcare, and tech sectors. Led cross-functional teams on initiatives spanning AI-based accessibility, predictive modeling, and time series forecasting, impacting operational efficiency, customer satisfaction, and compliance. Successfully deployed LLMs and deep learning models using Python, Azure, and Databricks, while mentoring junior talent and driving stakeholder alignment. PMP and PSM-certified with a Master's in Biomedical Engineering. Core competencies include: machine learning, NLP, LLMs, time series forecasting, stakeholder engagement, cloud platforms (Azure, GCP, AWS), Python, and Power BI.

Experience

Data Scientist | Ontario Government | Toronto, Canada   **Nov 2023 - Present**

- **Implemented LLM models using Python and Azure Databricks** to analyze over 10,000 customer comments, identifying actionable insights to improve client satisfaction.
- **Led the development of a data migration framework** aligned with the medallion architecture, ensuring data quality, integrity, and ongoing monitoring.
- Developed a **predictive stock management model** using Exponential Forecasting, in collaboration with cross-functional teams, reducing procurement costs by ~20%.
- Built time-series forecasting models using Python's Prophet and @RISK models to predict in-person transactions across 200 ServiceOntario locations, **optimizing staffing and operational planning by ~10%.**
- Created **Power BI dashboards** to monitor customer feedback trends and produced in-depth reports, uncovering insights that improved business processes and informed decision-making.

Lead Data Scientist | Magnify Access Inc. | Toronto, Canada   **May 2023 – Apr 2024**

- **Led a team of 8 professionals** to design and deploy an **AI-driven solution for automatic remediation of document accessibility issues**, cutting manual processing time by 60% and improving compliance with accessibility standards.
- Developed and deployed a Python-based BERT model via REST API to automate recommendation extraction from medical documents, achieving a 75% reduction in processing time.
- **Oversaw the full project lifecycle**, including task delegation, progress monitoring, and ensuring alignment with business goals and project timelines.
- Provided technical and professional mentorship to junior team members and interns, fostering a collaborative and growth-focused environment.

Data Scientist | Toronto Metropolitan University | Toronto, Canada   **Feb 2022 – Feb 2023**

- **Developed end-to-end deep learning models** using EEG data in Python to detect epileptic seizures, achieving an 18% improvement in AUC, F1 score, precision, and recall.
- Ensured data integrity through effective cleaning and preprocessing, facilitating seamless integration with Machine Learning models.
- **Mentored undergraduate students** by providing technical feedback and project support, enhancing their analytical skills, and contributing to improved project outcomes.

- **Refined time series forecasting models (XGBoost, Random Forest, and Neural Networks)** through feature engineering, achieving a 5% increase in demand prediction accuracy and enhancing workforce planning.
- Collaborated with **cross-functional teams** to define data requirements and implemented integration solutions, improving data accessibility, and streamlining operations for faster decision-making.
- Delivered actionable workforce insights using **Power BI and Python** for automated reporting and interactive visualizations, enhancing stakeholder decision-making.

Education

Western University, M.Sc., Biomedical Engineering	**2019 - 2021**
Isfahan University of Technology (IUT), B.Sc., Electrical Engineering	**2014 – 2018**

Certification

Project Management Professional (PMP)®	**July 2025**
Multi AI Agent System with crewAI	**June 2025**
Professional Scrum Master I (PSM I)	**Nov 2024**
R for Data Science	**May 2023**
SQL for Data Science	**Mar 2023**

Skills

Programming/Tools: Python (Pandas, NumPy, Scikit-Learn, SciPy, Seaborn, PyTorch, TensorFlow, spaCy, NLTK), R, SQL, Advanced Excel, VBA, C/C++, Git (GitLab), JIRA/Confluence, MATLAB, Docker, Kubernetes

Data Scientist: Machine Learning (Supervised, Unsupervised, Reinforcement Learning), Deep Learning (TensorFlow, PyTorch), Natural Language Processing (NLP), Time Series Forecasting, Statistical Modeling, Predictive Analytics, Feature Engineering, Model Evaluation & Tuning, Model Deployment, A/B Testing, Experimental Design, Data Wrangling, Data Preprocessing, Data Augmentation, Clustering, Classification, Regression, Dimensionality Reduction (PCA, LDA), Cross-validation, Hyperparameter Optimization

Data Visualization: Tableau, Power BI, Data Visualization Techniques (Dashboards, Reporting), Matplotlib, Plotly, ggplot (R), Seaborn

Cloud Computing: GCP, AWS, Azure, AWS Lambda, Google Cloud Functions, Google BigQuery, Apache Spark, Hadoop

Soft Skills: Collaborative Teamwork, Project Management, Effective Communication, Problem- Solving, Adaptability, Leadership, Critical Thinking, Stakeholder Management