Akram Vasighizaker

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Google scholar:
https://scholar.google.com/citations?user=mJSJoqIAAAAJ&hl=en)

Professional Summary

- Strong background in machine learning, DNN programming & AI modeling, high-dimensional data processing, and software development.
- Proficient in Python, R, MATLAB, TensorFlow, PyTorch, Keras, Scikit-learn, Docker & Containerization and various machine learning frameworks.
- An innovative and driven computational biology & bioinformatics Researcher
- I have spearheaded projects that led to the development of cutting-edge research in healthcare for genomics data analysis.
- As an active collaborator in a North American-wide project, I've gained valuable leadership and teamwork experience.
- Research publications in top-tier journals & conferences.
- Qualified for the Mitacs Research Training Award (RTA).
- Valued member of scientific journal reviewer community.
- Delivered workshops on Applied Machine Learning with Python.
- Continuous learning technologies, GANs, Hugging Face, Fine-tuning LLMs (GPTs), Prompt Engineering, Reinforcement Learning & RLHF.
- My passion for mentoring and sharing knowledge extends to running an educational online course platform.

Work Experience

Post-Doctoral Fellow July 2024- Present
School of Biomedical Science, University of Windsor

- Analyzing large-scale real datasets using existing machine learning models, R, Python, Docker and containerization, HPC, Linux & cmd
- Collaborating with multidisciplinary teams in bi-weekly meetings

Research & Teaching Assistant

University of Windsor, Windsor, ON Jan 2020 –April 2024

- Designed ML architecture for large-scale data using training machine learning and deep learning models (GNN, CNN, RNN, LSTM, XGBoost), embedding models (t-SNE, UMAP, SOM, LLE, MLLE, ICA, Isomap, Laplacian eigenmap), spectrul clustering, fine-tunning, benchmarking, R and Python (Scanpy, Tensorfelow, keras, Scikit-learn, Pytorch, ggplots)

- Integrated NLP techniques for analyzing historical texts, Volunteer Research assistant at Leddy Library, University of Windsor
- Image recognition course project using convolutional neural network (CNN) with Transfer Learning (InceptionV3 model)
- Taught “Artificial Intelligence for Games” course to undergrad students as an Instructor

Data Analyst & Software Developer

Central Insurance Research Centre, Tehran, Iran — Jan 2019 – Dec 2019

- Automated workflows for data integration, data cleaning and preprocessing (C#, SQL).

Education

Ph.D. in Computer Science, University of Windsor, Windsor, ON, Canada — Jan 2020 – April 2024
M.Sc. in Computer Engineering, Tarbiat Modares University, Tehran, Iran — Sep 2012 – Jan 2015

Technical Skills & Certifications

Programming	**ML Frameworks & AI**	**Tools & Platforms**
Python	TensorFlow	Docker & Containerization
R	PyTorch	Microsoft Azure
C#	Keras	Git
C++	Scikit-learn	SQL Server
	Hugging Face	JupyterHub

- **Certificates:** Introduction to Generative AI: Architectures & Application | Text Generation with Recurrent Neural Networks (RNNs) | Human Faces Generation with Generative Adversarial Networks (GANs) | Apple Stock Price Prediction with LSTM Algorithm | Elevating Data Science Projects with ChatGPT | Building Deep Learning Applications with Keras | Machine Learning in Python and SQL Server
- **Languages:** English (Advanced) | Persian (fluent) | Azeri (Advanced)

Honors, Awards, & Hobbies

- Member of International Society for Children with Cancer
- Member of Canadian Association for Girls in Science (CAGIS), Taught Python to kids
- Present ML workshop as a guest speaker, University of Detroit Mercy, 2021, 2022
- Volunteered as an IT student consultant at Leddy Library in 2022
- Volunteered in Research group of UofWindsor, COMP Science (RPM), Delivered Python workshops to Master students
- *Dancing & Cooking!*