Shayan Alahyari

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github.com/ShayanAlahyari

EDUCATION

Western University 2024 - 2026

MSc. Computer Science London, Canada

Thesis: "Enhancing Data Augmentation Techniques In Deep Learning"

Supervisor: Prof. Mike Domaratzki

GPA: 4.0/4.0

Western University 2022 - 2024

BS. Computer Science London, Canada

Major Awards: NSERC Student Research Award

GPA: 4.0/4.0

Shiraz University 2012 - 2016

BE. Electrical Engineering Shiraz, Iran

NSERC-FUNDED RESEARCH PROJECTS

Software and Machine Learning Engineering for Genomic Selection

Funding: Awarded NSERC Student Research Award of \$10,000

Supervisor: Professor Mike Domaratzki, Western University

Repository: https://github.com/ShayanAlahyari/Advanced-Data-Engineering-for-

<u>Machine-Learning-in-Genomic-Selection</u> *⊘*

- Developed shell and Python scripts to process large genomic datasets for machine learning.
- Managed and processed over **2TB** of genomic data, handling **500+** BAM files across 20+ chromosomes.
- Conducted BAM indexing, filtering, base recalibration, variant calling, and SNP filtering.
- Improved processing efficiency by 30% through optimized parallel computing on
- Utilized technologies including GATK, Miniconda, samtools, parallel, Java, and Python.

PERSONAL PROJECTS

Histopathologic Cancer Detection Project

2024 - 2025

May 2024 - Sep 2024

Repository: https://github.com/ShayanAlahyari/Histopathologic Cancer Detection &

- Designed and trained a deep Convolutional Neural Network (CNN) in PyTorch for cancer classification, integrating GAN-generated synthetic images to improve model robustness and accuracy.
- Implemented advanced data augmentation methods and leveraged GPU **acceleration** to optimize training processes, increasing computational efficiency and reducing training time.
- Achieved a high validation AUC of 0.989, demonstrating effective and reliable cancer detection through enhanced deep learning techniques.

PROFESSIONAL EXPERIENCE

FINANCIAL ADVISOR

CURO Financial Technologies Corp

- Built strong **client relationships** and achieved **95%+ satisfaction** by providing excellent service to clients in multiple industries.
- Analyzed and cleaned financial data from multiple sources to improve client financial decisions by 20%.
- Created easy-to-use **financial guides** that boosted client understanding and increased tool usage by **30**%.

Jun 2016 – Jul 2018

ELECTRICAL ENGINEER

Gishay Negar

- Designed electronic **circuits/systems** for **20+ applications** using advanced technology, boosting system efficiency and performance by **30%**.
- Improved **circuit reliability** by **25%** and cut **energy use** by **20%** using simulation tools across multiple projects.
- Created testing protocols and ran **100+ tests**, ensuring **95% compliance** with performance standards.

TEACHING POSITIONS

Graduate Teaching Assistant

Western University, Faculty of Science

• Teaching assistant for Coding Essentials: Introduction to Python (CS 1026)

- Supported **1:1 student learning** through email, tutorials, and office hours.
- Debugged **Python code** and taught core programming concepts to improve problem-solving skills.

TECHNICAL SKILLS

- Languages: Python, Java, C, C++, SQL, Bash Shell
- Tools: Git, Docker, AWS, MySQL, .NET, ASP.NET, Agile
- Libraries: TensorFlow, PyTorch, React, Node.js, Django, Bootstrap, RESTful APIs

Shiraz, Iran

Sep 2024 - present

Jul 2019 - Nov 2022

London, Canada