

Shayan Alahyari

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📍 Middlesex College, Rm 334, Western University, London

🔗 github.com/ShayanAlahyari

EDUCATION

Western University

MSc. Computer Science

Thesis: "Enhancing Data Augmentation Techniques In Deep Learning"

Supervisor: Prof. Mike Domaratzki

GPA: 4.0/4.0

2024 – 2026

London, Canada

Western University

BS. Computer Science

Major Awards: NSERC Student Research Award

GPA: 4.0/4.0

2022 – 2024

London, Canada

Shiraz University

BE. Electrical Engineering

2012 – 2016

Shiraz, Iran

NSERC-FUNDED RESEARCH PROJECTS

Software and Machine Learning Engineering for Genomic Selection

May 2024 – Sep 2024

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

Supervisor: Professor Mike Domaratzki, Western University

Repository: <https://github.com/ShayanAlahyari/Advanced-Data-Engineering-for-Machine-Learning-in-Genomic-Selection> [↗](#)

- **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 servers.
- Utilized technologies including **GATK, Miniconda, samtools, parallel, Java, and Python.**

PERSONAL PROJECTS

Histopathologic Cancer Detection Project

2024 – 2025

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

Jul 2019 – Nov 2022

London, Canada

- **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%**.

ELECTRICAL ENGINEER

Gishay Negar

Jun 2016 – Jul 2018

Shiraz, Iran

- **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

Sep 2024 – present

- 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