

Ilia Alenabi

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EDUCATION

University of Waterloo

Honours Computer Science; **GPA: 3.90/4.00**

Specialized in Artificial Intelligence, Minor in Statistics

Waterloo, Ontario

Sep 2022 – Expected

SKILLS

Languages: Python, C/C++, Golang, Rust, Haskell, JavaScript, Racket

Frameworks/Libraries: Numpy, Pandas, PyTorch, TensorFlow, SciPy, scikit-learn, PySpark, LLVM, MLIR

Tools/Platforms: Langchain, Pinecone, MongoDB, Git, GitLab Runner, GCP, Docker

EXPERIENCE

Huawei Canada

Incoming Compiler Software Engineer Intern

Markham, Ontario

Jan 2025 – Apr 2025

- Implemented a program-guided memory optimization using **MLIR**, improving far-memory access time by **70%**
- Developed **3 MLIR dialects** with custom compiler passes, integrating them into **Polygeist's** parsing pipeline

Cohere

Senior Data Quality Specialist - Part-time

Toronto, Ontario

Oct 2024 – Present

- Evaluated AI models' problem-solving skills, solving and correcting advanced **math** and **programming** questions

Questrade Financial Group.

Software Engineer

Remote

Sep 2024 – Dec 2024

- Integrated **NLP** solutions into DevOps workflows, enhancing the accuracy of developer support responses by **36%**
- Implemented ML-based **POCs** for automated **Unit** and **Smoke Testing** frameworks, enhancing testing efficiency
- Processed **3 years** of developer interactions across multiple platforms to train models, enhancing model quality
- Automated **MLOps** in GCP for model **retraining** and **testing**, improving development speed and efficiency

Silverberry Group

Data Scientist

Vancouver, British Columbia

Apr 2022 – Apr 2023

- Oversaw and processed **200+** hours of audio/video utilizing **GCF**, **OpenAI Whisper**, and **Azure Functions**
- Converted various data files into vectors for storage in vector databases like **Pinecone**, **Chroma**, and **Weaviate**
- Created an AI-simulated **interactive agent** environment to optimize application UI usability pre-production
- Developed an image recommendation model with **PyTorch**, leveraging **convolutional neural networks (CNN)**

RESEARCH

Pingoo.AI

Co-author – *Building Trustworthy Generative AI for Diabetes Care*

Remote

Jan 2023 – Apr 2023

- Published in **Journal of Diabetes Science and Technology**, ranked in the **top 10%** of health sciences journals
- Developed a diabetes-focused **RAG** model using **Langchain** library in Python, and trained on over **700 articles**
- Reduced factual errors in AI output from **45%** to **1%** through **few-shot learning** and **prompt engineering**
- Conducted validation tests for the chatbot, using **F1 score** among other metrics to assure model reliability

COMPETITIONS

Silver Medalist

National Mathematics Olympiad

Mar 2022

- Ranked **19th** out of 20,000 competitors for selection to the **International Mathematics Olympiad (IMO)** team
- Studied advanced math, including **combinatorics**, **algebra** and **number theory**, through a 2-year program

Silver Medalist

Combinatorics Olympiad (ICO)

Jul 2021

- Competed internationally in the **ICO**, achieving a **silver medal** among top participants worldwide
- Studied advanced topics in combinatorics, including **graph theory**, **discrete mathematics** and **game theory**