

Mohammed Zaid Mir

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EDUCATION

University of Western Ontario

London, ON, Canada

B.Sc. (Honors) in Computer Science, Minor in AI and Game Development

April 2026

- **GPA:** 4.0/4.0 (91.3%), Dean's Honor List (2023, 2024), Western Scholarship of Distinction
- **Coursework:** Computer Architecture, Machine Learning, Data Structures & Algorithms, Operating Systems, Discrete Mathematics, Statistics, Quantum Computing, Linear Algebra, Game Theory, Complex Analysis, Parallel Programming

TECHNICAL SKILLS

Languages: Python, Java, C/C++, C#, TypeScript/JavaScript, PostgreSQL/MySQL

Frameworks: NumPy, Pandas, Matplotlib, Seaborn, PyTorch, napari, React, Node.js

Tools: Git, Unix/Linux, Unity, Unreal Engine, LaTeX

EXPERIENCE

Software Engineer Intern

London, ON

Robarts Research Institute

May 2025 - August 2025

- Developed a PyQt5 GUI for a low-cost Fourier ptychography microscope, enabling full-image display with interactive options
- Refactored the legacy microscope control software in Python—integrating QT widgets for dynamic adjustment and FFT domain visualization

Co-Founder and Technical Lead

London, ON

jobSpace

April 2025 - Present

- Developing a marketplace platform connecting university students with flexible employment opportunities
- Architected and implemented full-stack solution using React, Firebase, Tailwind CSS, and JavaScript
- Developed high-fidelity wireframes and interactive prototypes in Figma, enabling efficient user testing prior to development

Data Engineer Intern

London, ON

Banking Analytics Lab

July 2024 - April 2025

- Developed and fine-tuned deep learning scripts comparing investment decisions for self-directed and advised investors
- Utilized NumPy and Pandas to clean and process over 350,000 rows of financial data, increasing efficiency by 95%
- Implemented and optimized training algorithms on CUDA GPUs using PyTorch, reducing runtimes by 23%

Junior Data Scientist

London, ON

Western Investment Club

Sep. 2023 - Sep. 2024

- Researcher for \$300k long-only student-led value investing fund, specializing in the Consumer Retail Group
- Acquired and applied valuation techniques, including DCF analysis and comparison of financial multiples
- Utilized SQL and Pandas to analyze complex datasets, refining our investment strategy by identifying key financial indicators and trends in consumer retail companies, thereby enabling more informed investment decisions

Undergraduate Student Researcher

London, ON

University of Western Ontario

Jan. 2023 - June 2023

- Designed a novel Java program based on Google's PageRanking Algorithm to rank web pages of the Dept. of Mathematics Website, using Jsoup for efficient parsing, extraction, and manipulation, ensuring comprehensive data processing
- Researched hidden Markov model training algorithms, Bayesian unsupervised learning, approximate inference problems
- Utilized JProfiler and VisualVM to optimize numerical algorithms, enhancing computational efficiency and accuracy by 30%

PROJECTS

mittensOS 🐱 | *Pygame, NumPy*

- A comprehensive chess engine implementing negamax search with alpha-beta pruning for advanced AI
- Engineered a robust game state management system to handle move validation, special moves, and game status
- Implemented a depth feature allowing the engine to evaluate multiple moves ahead, enhancing decision making

Coinbase 🐶 | *Python, Flask, JSON, Postman*

- A decentralized blockchain encompassing block creation, transaction management and proof of work
- Implemented a RESTful API with Flask to enable interaction with blockchain, transaction creation, block mining
- Integrated a consensus algorithm to ensure blockchain integrity and resolve conflicts across decentralized nodes

OTHER

LCM Piano Diploma holder; Canadian University Chess Championship Candidate (Peak Elo/Rating: 2065).