Ziad Elnagar

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EDUCATION

BESc, Software Engineering - Third Year **May, 2028**
University of Western Ontario **London, Ontario**
- o **Related Coursework:** Data Structures & Algorithms, Database Management Systems, Agile Principles, Operating Systems, Embedded Systems, Networking & Cloud, Web Technologies, Quantum Computation

EXPERIENCE

RJH Biosciences **Toronto, Ontario**
Machine Learning Research Intern *Oct 2025 – Current*
- **Developing predictive machine learning models** in Python using pandas and scikit-learn to classify genetic variants as pathogenic or benign, achieving a **15% early accuracy improvement** through advanced **data preprocessing, feature engineering, and model optimization**
- Cleaning and integrating **10,000 +** variant records from public genomic repositories, reducing missing data by **35%** and improving dataset consistency for downstream model training

Western Formula Racing **London, Ontario**
Software Developer *Sep 2023 – May 2025*
- **Led a team of 15 software engineers** to build and maintain the official team website using **React** and **Tailwind CSS**
- Managed version control and collaboration via **GitHub**, ensuring consistent review cycles and clean deploys

Western Founders Network **London, Ontario**
Director of Education *Sep 2024 – May 2025*
- Taught programming fundamentals like **data structures**, **APIs**, and **logic flow** to a **100+ attendees** resulting in an increase to their course exam scores by an average of **15–20%**

PROJECTS

AI Podcast Clipping SaaS| Python, FastAPI, WhisperX, LR-ASD, Gemini API, AWS
- Built an **AI-powered SaaS platform** that transcribes full podcasts, detects viral moments with **Gemini 2.5 Pro**, and generates speaker-cropped short-form video clips with subtitles for TikTok and YouTube Shorts
- Served **ML pipelines** using **FastAPI** with serverless GPU inference via **Modal**, managed clip generation and long-running jobs with **Inngest queues**, and stored assets on **AWS S3**

Resumind | TypeScript, React, Tailwind CSS, Claude API
- **Automated** an AI-powered resume analyzer by integrating **Claude-3.7-sonnet API** with a custom **keyword extraction algorithm** to evaluate resume-job description compatibility
- Conducted testing across **50+ resumes**, improving ATS keyword match scores by up to **35% through personalized**, real-time feedback

Western Formula Website | React, Tailwind CSS
- Worked with **15+ Developers** to build a fully responsive website showcasing team structure, design goals, and technical achievements, website supported **1,500+ monthly visitors** during the sponsorship season
- Performed manual **testing** and **debugging** in an **agile workflow**, tracking defects and managing issues through **GitHub**

Personal Portfolio Website | React, Tailwind CSS, Vite
- Developed a **responsive portfolio site** to showcase **personal projects and technical skills**
- Optimized layout and image delivery for mobile and desktop, reducing homepage load time by **25%**

TECHNICAL SKILLS

Languages: Python, Java, JavaScript/Typescript, HTML, SQL, C#, C/C++, Ruby, Go
Frameworks & Tools: Git, Django, React, Spring Boot, Docker, UML, Azure, Linux, MySQL, PostgreSQL, MongoDB