

Hamza Elmi

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EDUCATION

University of Guelph

Honors Bachelor of Computing, Computer Science (Co-op)

Guelph, ON

Sept. 2022 – May 2026

EXPERIENCE

Muse Capital Corp - Software Development Intern

May 2023 – August 2023

Software Development Intern

Toronto, ON

- Drove the creation of new software functionalities that directly addressed customer feedback, leading to over **1,500** user interactions with the new features within the first month, validating the product's market fit.
- Orchestrated a thorough review of 10+ code repositories, identifying and fixing recurring bugs; the resulting stability improvements enhanced user experience and increased daily active users **by 20%** within two months.
- Developed problem-solving capabilities by assisting a team of 20 employees, a management system, to collaborate on new and existing projects.

Ingram Micro – IT Help Desk Specialist

June 2022 – Sep 2022

IT Help Desk Specialist

Mississauga, ON

- Oversaw installations of new technology and new personnel training
- Inspected software for full power potential before and after updates.
- Created databases and spreadsheets to improve inventory management accuracy by **80%**.
- Provided support for network infrastructure and baseline configurations.

Toledo Foundation – Project Facilitator

May 2022 – July 2022

Project Facilitator

Mississauga, ON

- Utilized advanced project management software, reducing project timelines by **20%**.
- Executed a tailored CRM system that boosted donor retention by **15%** and improved fundraising efforts.
- Facilitated cross-functional meetings, bridging technical and non-technical stakeholders to ensure project deliverables met donor expectations.

PROJECTS

StoolHealthAnalyzer | TypeScript, JavaScript, Python, FastAPI, OpenCV, Docker

Dec.2024 – Present

- Developed AI-powered medical analysis system using Python computer vision (OpenCV) and TypeScript React frontend
- Engineered medical imaging pipeline analyzing 15+ clinical metrics (color, consistency, shape) using HSV color space analysis and texture recognition algorithms
- Implemented Bristol Stool Scale integration with 90% clinical alignment using Groq-accelerated AI model inferences
- Designed encrypted storage system for medical data compliance using Python cryptographic libraries

EPL Match Winner Predictor | Jupyter, Flask, Python, JavaScript

Jan.2024 –Feb .2024

- Developed a comprehensive EPL match winner prediction system, utilizing Python, Jupyter Notebooks, and machine learning libraries to analyze and predict match outcomes.
- Leveraged web scraping techniques with requests and BeautifulSoup to gather match data from FBref, ensuring an extensive dataset for analysis.
- Employed pandas for data cleaning and preprocessing, preparing the dataset for machine learning model training, to then predict matches between Premier League teams based on statistics and concurrent match history

DataCompressX/ Python, Git, Docker

May 2023– Sept.2023

- Programmed a compression and decompression algorithm similar to the functionalities of WinZip.
- Utilized Huffman's Algorithm to implement the compression and decompression processes.
- Widely used method for lossless data compression, provided a Python implementation of both compression and decompression processes.

TECHNICAL SKILLS

Languages: Java, JavaScript, C, TypeScript, Python, R, HTML, CSS

Developer Tools: Git, Gitlab, Docker, Google Cloud Platform, VS Code, Visual Studio, PyChar, Jupyter, Azure