

# 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, Python, FastAPI, React, 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