

# Mathew Al-Frenn

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## Education

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University of Ottawa — BAsC, Software Engineering (CO-OP) *Expected graduation : August 2027*

- Relevant courses: Introduction to Computer Science I and II, Digital Systems, Data Structures and Algorithms (all 4.0 GPA)
- GPA : 3.92/4.00 | \$2,000 Admission Scholarship
- Participating in CO-OP with hands-on industry experience every 4 months

## Technical Skills

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- **Programming Languages:** Python, JavaScript, Java, SQL, PostgreSQL, SQLite, HTML/CSS,
- **Technologies & Libraries:** Flask, Spring Boot, NumPy, Matplotlib, JUnit, PyTorch, TensorFlow, HTTPie, Maven, Gradle, Tomcat
- **Tools & Platforms:** Git, Linux, Heroku, Jupyter Notebooks, VS Code, IntelliJ, Eclipse, Docker, Postman, Android Studio, Blender, UtiMaker Cura, Unity, Kaggle, Terminal/CMD
- **Communication:** Trilingual (English, French, Arabic), proficient with Microsoft Suite

## Work Experience

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### OT Specialist

Jan 2025 - Apr 2025

Kruger Products, Gatineau, Québec

- Independently supported OT systems across two sites, ensuring reliable issue resolution
- Automated data collection and reporting with **Power Automate** and **Power BI**
- Led my own OT project as **Scrum Master**, improving data access and decision-making
- Worked with **SQL** Server tools (**SSIS**, **SSDT**, **SSMS**) to manage and query databases
- **Led** team of four, sharing skills in tools & workflows, boosting performance & productivity

### Technical Support Specialist

May 2024 - Aug 2024

Shared Services Canada, Gatineau, Québec

- Developed website scenarios using **HTML/CSS**, resolved technical issues, and logged incidents
- Managed technical environments and databases using **Linux**, **SQL**, **VM**, and **SSH**
- Obtained a government security clearance

## Projects

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**Neural Network** | [Github](#) | **NumPy**, **Python**, **Flask**, **CSS**, **JavaScript**, **HTML**, **Jupyter**, **MNIST**, **Matplotlib**

- Developed a neural network from scratch using **Python** and **NumPy** to recognize numbers (**98.5%** accuracy) and clothing (**88.77%** accuracy) using the MNIST dataset
- Trained models on 60,000 images for each dataset, optimizing performance for both recognitions
- Integrated the number recognition model into a web application using **Flask**, **HTML**, **CSS**, and **JavaScript**, enabling users to draw numbers and have them recognized in real-time

**Runnerz** | [Github](#) | **Java**, **Spring Boot**, **Postman**, **JUnit**, **Docker**, **PostgreSQL**, **Maven**, **REST API**

- Developed a run tracking app using **Java**, **Spring Boot**, **PostgreSQL**, and **REST API**, designed as a learning project to practice backend technologies, testing/debugging, and containerization
- Implemented user run tracking with data stored in a **PostgreSQL** database using **Docker**
- Integrated **Postman** API collection for endpoint testing and **JUnit** for unit testing