

Haya Mahmoud

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Skills

Languages: C, Python, JavaScript, Java, HTML/CSS, SQL

Libraries/Frameworks: Node.js, React, Libc, Matplotlib, Pandas, Seaborn, P5.js, Java Graphics2D

Developer Tools: Docker, Google Cloud Platform (GCP), Git, Bash, Valgrind, VS Code

Relevant Skills: Data Structures, Algorithms, Object Oriented Programming, Agile Methodologies, Unit Testing

Education

Bachelor of Computing, Software Engineering (Co-op)

Sept 2024 – Expected Apr 2029

University of Guelph

- Area of Emphasis: Artificial Intelligence

Projects

ShelterMap Toronto (Sheridan Datathon 2025)

Nov 2025

Python, Next.js, Leaflet, Google Cloud

github.com/hayamahmoudd/Datathon2025

- Built a full stack web app in a 24-hour hackathon that cleaned and joined Toronto homelessness datasets, then mapped high pressure areas so city planners can quickly spot high priority neighbourhoods for new shelter placement.
- Used **Google Cloud** to power the data pipeline and deployment, and our project was nominated for Best Use of Cloud.

Statistics Canada Job Vacancy Analysis

Mar 2025 – Apr 2025

Python, Git, Seaborn

github.com/hayamahmoudd/Job-Vacancy-Analysis

- Built a Python analysis tool with a team of three to clean and explore **219,912** Statistics Canada job-vacancy records across **33 quarters**, **14 regions**, and **119 industries**, generating clear trend insights that highlight how vacancies change over time and differ by industry and region.

AI-Powered Career Finder App

Jul 2025 - Aug 2025

HTML/CSS, JavaScript, Node.js, Google Gemini API

github.com/hayamahmoudd/CareerFinderAI

- Developed a career exploration web app that utilizes the **Gemini 2.5 API**.
- Implemented AI model rules to provide concise responses and generate only **2–3** relevant career paths based on user interests.

Recipe Generator

Nov 2024 - Dec 2024

HTML/CSS, JavaScript, Node.js, Spoonacular API

github.com/hayamahmoudd/RecipeGenerator

- Developed a full stack web application using **Express.js** backend that generates recipes from user provided ingredients.
- Integrated the Spoonacular Food API to retrieve relevant recipes and support up to **100** results per request.

Pengy Float Java Game

Nov 2023 - Jan 2024

Java, Graphics2D, NetBeans

github.com/hayamahmoudd/pengyfloat

- Led a team of two to design and develop a unique 2D game in Java using **Graphics2D**.
- Applied **object oriented** concepts and **agile methodologies** throughout development in order to create a scalable design.

Work Experience

Server/Shift Leader

Guelph, ON

Sleeman Centre

Oct 2022 – Present

- Serve **100+** customers per shift in a fast paced concessions environment.
- Promoted to Shift Leader, responsible for opening/closing operations and supervising **2–3** staff.

Math/Science Tutor

Guelph, ON

Centennial CVI

Sept 2023 – June 2024

- Tutored Grade 9–12 Math/Science (Advanced Functions, Data Management, Biology, Chemistry, Optics).
- Enhanced communication and problem-solving skills by tailoring instruction for diverse students.

Awards & Achievements

University of Guelph's CEPS Dean's Honours List (3x)

Sep 2024 - Jan 2026

- Recognizes students with an average of **80%+** per semester.

University of Guelph's Entrance Scholarship

June 2024

- **\$1000** awarded to incoming students with an admission average of **90%+**.

NCWIT Aspirations in Computing Award

Apr 2024

- Awarded for excellence in CS, leadership, and extracurriculars in computing.