Haya Mahmoud

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Skills

Languages: C, Python, JavaScript, Java, HTML/CSS
Libraries/Frameworks: Node.js, React, Libc, Matplotlib, Pandas, Seaborn, P5.js, Java Graphics2D
Developer Tools: Google Cloud Platfrom (GCP), Git, Bash, Valgrind, VS Code
Relevant Skills: Data Structures, Algorithms, Object Oriented Programming, Agile Methodologies, Communication

Education

Bachelor of Computing, Software Engineering (Co-op)   *Sept 2024 – Present*
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
- 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 3 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
- 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** servers.

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 - Dec 2025*
- 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.