Hamza Ammar

Waterloo, Ontario — hamza.k.ammar@gmail.com — LinkedIn — Github

EDUCATION

University of Waterloo   Sept 2025 - April 2030 (Expected)
Bachelor of Software Engineering (BSe)

CERTIFICATIONS

- Machine Learning Specialization - *DeepLearning.ai, Stanford University*   August 2025
- Algorithmic Toolbox - *UC San Diego*   Jan 2025
- Python for Everybody Specialization - *University of Michigan*   July 2020

SKILLS

- **Languages:** Python, C++, C, Swift, JavaScript (React, Next.js, Node.js)
- **Machine Learning:** TensorFlow, NumPy, Deep Learning, Algorithms, Data Structures
- **Cloud & Tools:** AWS, Firebase, Git/GitHub, Linux CLI
- **Certifications:** Stanford ML Specialization, UCSD Algorithmic Toolbox

EXPERIENCE

Kuzu Inc   Waterloo, Ontario
Software Intern   June 2024 - August 2024

- Enhanced KuzuDB's CLI shell extension to improve query readability and developer usability using C++ and Go
- Fixed bugs in the Kuzu Shell to improve product stability and user experience across multiple releases
- Contributed **36+ commits** merged into the main repository, advancing core product functionality

MapFLOW   Waterloo, Ontario
Data Manager   November 2022 - March 2024

- Consolidated medical research into structured datasets, saving **2000+ pharmacists** ∼15 minutes per patient
- Built a Python CLI with OpenAI's API to auto-translate datasets, extending app access to French users

YMCA Of Three Rivers   Waterloo, Ontario
Instructor/Lifeguard   September 2023 - August 2024

- Taught **100+ swimmers** across all levels, building confidence and technique through structured lessons
- Maintained safe pool conditions by monitoring chlorine levels and actively scanning water for potential risks

Engineering Science Quest   Waterloo, Ontario
High School Leader   June 2023 - August 2023

- Led **8 STEM camps** for **200+ students**, creating a safe, engaging, and hands-on learning environment
- Mentored **15 volunteers**, developing their leadership skills and preparing them for advanced organizational roles

LEADERSHIP

University of Waterloo – Student Governance   Sept 2025 – Present
Software Engineering Academic Representative & Math Endowment Fund (MEF) Representative

- Elected by peers to represent student concerns, providing academic feedback to faculty and administration
- Manage allocation of **$13k** through MEF to support student initiatives that enhance academic experience
- Act as a liaison between students, faculty, and governance bodies to improve learning and resource accessibility

NeoDev League   Waterloo, Ontario
Founder, Chair   May 2024 - Present

- Founded a non-profit that engaged **120+ students** in real-world problem solving through a 10-hour programming competition
- Raised **$8k+** in sponsorships to host the 2024 WRDSB Summit, securing partnerships with community organizations
- Built and launched a React-based website to attract sponsors and participants, improving event visibility and outreach

PROJECTS

CourseConnect   *Sept 2025 – Present*

- Built a Python scraper using Playwright and regex to extract course and degree data from the University of Waterloo calendar
- Designed a graph-based system with NetworkX to model prerequisites and generate optimal degree pathways

Flourishing Realty   *August 2025*

- Built a responsive webpage with Next.js, Node.js, and AWS, enabling tenants to easily browse for rental homes

UniMap   *June 2022*

- Built a campus navigation tool in Python and NetworkX, applying Dijkstra's algorithm to lead university students