

Ali Zafar Mohammad

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SUMMARY

Computer Science student at McMaster University with hands-on experience in **software engineering, algorithms, and automation**. Skilled in Python, C, C++, Java, JavaScript, and SQL, with projects in **machine learning, web application development, and cloud deployment**. Strong foundation in **data structures, distributed systems, and testing**, with proven ability to apply CS concepts to real-world problems.

EDUCATION

McMaster University
Bachelor of Applied Science in Computer Science

Hamilton, ON
Expected Graduation December 2026

EXPERIENCE

Software Developer Intern – Niwish

May 2025 – September 2025

- Built and deployed Node.js APIs for referral and rewards systems, applying **algorithms and data structures** to optimize transaction processing.
- Developed scripts to **automate routine tasks** such as transaction validation and reward distribution, reducing manual intervention by 30%.
- Collaborated in Agile sprints, contributing to testing, code reviews, and team documentation to ensure quality and accountability.

Software Development Lead – McMaster Robosub

February 2025 – Present

- Trained AI models and optimized performance for real-time robotics, demonstrating problem-solving under constraints.
- Collaborated in a student-led team environment, contributing to planning, documentation, and stakeholder presentations.

Software Developer Intern – KUWAITNET

June 2024 – September 2024

- Developed and maintained **Python/Django REST APIs** with SQL databases, ensuring secure and reliable data workflows.
- Deployed applications on AWS using **CI/CD pipelines and automation scripts**, reducing deployment errors and improving scalability.
- Partnered with DevOps and product teams to validate requirements, implement testing, and enhance software performance.

PROJECTS

AI powered nutritional label scanner

- Built an **OCR pipeline with Google Vision API**, integrated Gemini API for **structured data parsing**.
- Added **error-handling and validation** to ensure accuracy, consistency, and traceability.
- Documented workflows for **audit-ready reporting**, showcasing real-world **AI-powered systems**.

Housing Price Prediction (ML + Jupyter)

- Conducted **data preprocessing, cleaning, and validation** in Python using pandas/NumPy.
- Applied **Linear Regression and Random Forest models** to identify trends and generate predictive insights.
- Delivered findings through **BI-ready reports and visualizations**, supporting audit trails and decision-making.

SKILLS

- Programming & Data:** Python, C, C++, Java, JavaScript, SQL, PostgreSQL, pandas, NumPy, Node.js, scikit-learn, Matplotlib, HTML, CSS, Bootstrap5,
- CS Fundamentals:** Data Structures & Algorithms, OOP, SDLC, Unit Testing, Git, Agile
- Tools & Systems:** Linux/Unix, AWS (EC2, S3, RDS), CI/CD pipelines, Jupyter
- Collaboration & Problem-Solving:** Agile teamwork, Stakeholder Documentation, Report Writing, Presentation Skills