

Mahmoud Hachem

Software Engineer / Full-Stack .NET Developer | Technical Analyst | QA & Data Analyst

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Professional Summary

Software Engineer / Full-Stack .NET Developer and Technical Analyst with hands-on experience in enterprise AI operations, SQL/database support, release validation, QA, and production-ready .NET development. Skilled in Datadog, Auth0, Salesforce, Azure DevOps, GitHub, SQL Server, and Azure for troubleshooting, reporting, incident investigation, and workflow improvement. Strong mix of software development, technical analysis, quality monitoring, and stakeholder communication for secure, reliable systems.

Technical Skills

Programming & Backend: C#, ASP.NET Core MVC, .NET 8, Java, Python, JavaScript, REST APIs, LINQ, Entity Framework Core, OOP, MVC architecture

Databases & Reporting: SQL Server, Azure SQL, Oracle SQL, SQLite, SQL queries, data fixes, validation, backups/recovery, KPI reporting

Cloud, DevOps & Tools: Microsoft Azure, Azure DevOps, Git, GitHub, Visual Studio, VS Code, Datadog, Auth0, Salesforce, Intercom, Airtable, Notion

QA, Security & Analysis: QA audits, test cases, bug triage, log analysis, HAR/DevTools, vulnerability checks, SOP compliance, data validation, UAT support

Professional Strengths: Agile/Scrum, SME support, technical training, process improvement, documentation, stakeholder communication, cross-functional collaboration

Experience

Accenture

Oct 2024 – Nov 2025

Technical Analyst / QA / Team Lead (End Client: Leading AI Research Organization)

St. Catharines, ON

- Investigated enterprise AI application issues using Datadog, Auth0 logs, DevTools/HAR files, and internal monitoring tools, covering authentication problems, data-transfer failures, service trends, and release issues.
- Performed QA audits for agent tasks and tickets against SOPs, process criteria, KPI expectations, and quality standards; turned findings into coaching feedback and process improvements.
- Supported the Intercom-to-Salesforce migration and helped build Salesforce reports and KPI metrics for queue health, task completion, quality trends, and team performance tracking.
- Managed bug, survey, and user-check workflows in Airtable; used Notion for SOP reviews, policy checks, process audits, and reporting documentation.
- Provided SME floor support by answering technical/process questions, troubleshooting escalations, and translating complex issues into clear steps for analysts.
- Delivered QA and training support for Manila-based teams on Datadog investigations, Notion workflows, AI/LLM task quality, issue diagnosis, and solution standards.
- Assisted security and high-priority incident reviews by identifying suspicious patterns, documenting evidence, and escalating risk items to the correct stakeholders.

TELUS International AI Data Solutions

Jun 2024 – Dec 2024

AI Data Analyst (Contract, Part-Time)

Remote / Toronto, ON

- Evaluated AI and data tasks using detailed guidelines to ensure outputs met quality, relevance, safety, and compliance expectations.
- Gathered, cleaned, organized, and validated data from multiple sources to improve reporting accuracy and workflow consistency.
- Identified recurring quality patterns and process gaps, documenting feedback to improve task consistency and analyst performance.
- Worked independently in a remote, guideline-driven environment requiring precision, research judgment, and clear documentation.

Ontario Ministry of Transportation

May 2023 – Sep 2023

Jr. Technical Analyst

Toronto, ON

- Developed SQL queries in SQL Server and Oracle SQL to investigate records, validate data, apply controlled data fixes, and support internal application/database operations.
- Used Azure DevOps to track tickets, production tasks, QA items, bug reports, and testing work across development workflows.
- Created test cases, bug reports, and technical documentation that improved communication between QA, developers, and business stakeholders.
- Supported application/code adjustments using VS Code, Visual Studio, and GitHub while following change-control and version-sync practices.
- Assisted with backups, recovery procedures, and database validation to support reliability of government systems.

Marriott on the Falls Hotel

Jan 2021 – Nov 2023

IT Support Specialist (Seasonal)

Niagara Falls, ON

- Supported housekeeping and operations systems by troubleshooting file issues, data errors, and day-to-day technical problems across hotel departments.
- Maintained reporting and inventory records, improving accuracy and reducing recurring data issues through validation and follow-up.

Projects

CharityConnect / Stuart Lyall Fundraising Platform

ASP.NET Core MVC, .NET 8, EF Core, SQL Server/Azure SQL, PayPal REST API, Azure App Service

- Built a client fundraising platform for organization onboarding, referral tracking, PayPal-based donations, and eBook fulfillment after successful contributions.
- Developed role-based admin, organization, employee, and referral workflows using ASP.NET Core MVC, Razor views, ASP.NET Core Identity, Entity Framework Core, and SQL Server/Azure SQL.
- Integrated PayPal order creation, capture, refund handling, provider operation logging, donation allocation, and internal finance/payout workflows for organization and referral-based tracking.
- Improved production readiness through anti-forgery validation, secure cookies, rate limiting, environment variable secrets, content security policy headers, startup configuration validation, and Azure deployment setup.
- Added hosted background queues/services for donation receipt email delivery and newsletter enrollment/sync so provider delays would not block donation success flows.

CAA Niagara Inventory Management System

ASP.NET MVC, C#, SQL, Requirements Gathering, QA Testing

- Designed and developed an inventory management application for CAA Niagara regional branches, replacing manual tracking with centralized digital workflows.
- Created client-focused wireframes, requirements notes, test cases, CRUD workflows, inventory records, and reporting views to align functionality with branch operations.
- Led ongoing QA testing and debugging to improve usability, reliability, and maintainability before client handoff.

Education

McMaster University

Bachelor of Technology, Software Engineering Technology (Co-op)
Specialization: AI and Machine Learning

May 2024 – Apr 2026

Hamilton, ON

Niagara College

Advanced Diploma, Computer Programming & Analysis (Co-op)
President's Honour Roll (2022, 2023)

Sep 2021 – Dec 2023

Welland, ON

Certifications & Professional Development

Software & Data Engineering

- IBM – Introduction to Software Engineering – 2026
- IBM – Introduction to Data Engineering – 2026
- IBM – Python for Data Science, AI & Development – 2026

Data Analytics & SQL

- IBM – Databases and SQL for Data Science with Python – 2026
- IBM – Exploratory Data Analysis for Machine Learning – 2026
- IBM – What is Data Science? – 2026
- Google – Foundations: Data, Data, Everywhere – 2026
- Microsoft – Preparing Data for Analysis with Microsoft Excel – 2026

Cybersecurity & Risk

- Google – Foundations of Cybersecurity – 2026
- Google – Play It Safe: Manage Security Risks – 2026

Cloud & Project Management

- AWS – Cloud Practitioner Essentials – 2026
- Google – Foundations of Project Management – 2026

Credential documentation available upon request.

Languages

English (Fluent)

Arabic (Intermediate)