

# Mahmoud Hachem

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

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## Professional Summary

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Software Engineer / Full-Stack .NET Developer and Technical Analyst with hands-on experience across .NET 8, ASP.NET Core MVC, EF Core, SQL Server/Azure SQL, REST APIs, Azure, Power BI, SSIS, QA, release validation, and enterprise AI operations. Strong record building secure full-stack workflows, diagnosing Auth0/SSO, data-transfer, and production issues with Datadog/HAR/logs, developing SQL-backed reporting and data fixes, and translating technical findings into clear documentation, training, and stakeholder-ready solutions.

## Technical Skills

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

**Databases, BI & ETL:** SQL Server, Azure SQL, Oracle SQL, SQLite, Power BI, DAX, SSIS, ETL, SQL queries, reporting, data validation, backups/recovery

**Cloud, DevOps & Tools:** Microsoft Azure, Azure App Service, 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, SSO/SCIM, SAML/OAuth, UAT, SOP compliance, release validation, vulnerability checks

**Professional Strengths:** Agile/Scrum, SME support, technical training, requirements gathering, documentation, process improvement, stakeholder communication, remote collaboration

## Experience

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### Accenture

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

Oct 2024 – Nov 2025

St. Catharines, ON

- Investigated enterprise AI application issues using Datadog, Auth0 logs, DevTools/HAR files, and internal monitoring tools, covering authentication/SSO issues, data-transfer failures, service trends, release issues, and recurring defects.
- Performed QA audits for agent tasks and tickets against SOPs, process criteria, KPI expectations, and quality standards; converted findings into coaching feedback, process improvements, and clearer operating guidance.
- 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 while using Notion for SOP reviews, policy checks, process audits, reporting documentation, and knowledge-base improvements.
- Provided SME floor support, escalation guidance, Manila team training, and security incident review support by documenting evidence, diagnosing issues, and escalating risk items to the correct stakeholders.
- Diagnosed SSO/SCIM provisioning workflows across SAML, OAuth, and Google/Microsoft authentication paths; translated complex findings into clear resolution steps for analysts and cross-functional partners.

### TELUS International AI Data Solutions

AI Data Analyst (Contract, Part-Time)

Jun 2024 – Dec 2024

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, guideline consistency, and workflow reliability.
- Identified recurring quality patterns and process gaps, documenting feedback to improve task consistency and analyst performance in a remote, research-driven environment.

### Ontario Ministry of Transportation

Jr. Technical Analyst

May 2023 – Sep 2023

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

IT Support Specialist (Seasonal)

Jan 2021 – Nov 2023

Niagara Falls, ON

- Supported housekeeping and operations systems by troubleshooting file issues, data errors, reporting records, inventory records, and day-to-day technical problems across hotel departments.
- Improved operational data accuracy by validating records, following up on recurring issues, and keeping inventory/reporting information organized for department use.

## Projects

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### 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, eBook fulfillment, donation allocation, and internal finance/payout workflows.
- 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, hosted background queues/services for receipt email delivery, and newsletter enrollment/sync.
- Improved production readiness with anti-forgery validation, secure cookies, rate limiting, environment variable secrets, CSP headers, startup validation, and Azure deployment setup.

### CAA Niagara Inventory Management System

ASP.NET MVC, C#, SQL Server, JavaScript, HTML/CSS, Requirements Gathering, QA Testing

- Designed and developed a client inventory application for CAA Niagara regional branches, replacing manual tracking with centralized CRUD workflows, reporting views, item history, and out-of-stock visibility.
- Created client-focused wireframes, requirements notes, test cases, inventory records, reservation/transfer workflows, barcode-assisted scanning support, and debugging fixes before client handoff.

### Power BI Dashboard & SSIS Data Transfers

Power BI, DAX, SQL Server, SSIS, Visual Studio, ETL, Data Validation

- Built a retail sales dashboard by aggregating and transforming data into a reporting-friendly model, using Power BI visuals and DAX/SQL-backed reporting to surface performance trends.
- Designed SSIS ETL workflows to extract, transform, load, map, and validate student, enrollment, course, and related datasets into a centralized reporting structure.

### API, Mobile & Client-Server Applications

REST APIs, JSON, Java, Socket Programming, Multithreading, .NET MAUI, C#

- Developed a sports API retrieval application using REST API requests and JSON responses to display team, score, player, and historical data with error-aware retrieval patterns.
- Built a Java client-server messaging application with socket programming, multithreaded client handling, private messaging, connection updates, disconnect handling, and server activity logs.
- Created a .NET MAUI/C# points tracking app concept for reward balances, transaction history, account workflows, and SQL-backed mobile application practice.

## Education

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### 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

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### 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.