

# PATRICK MIHALCEA

SOFTWARE DEVELOPER

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## WORK EXPERIENCE

### 2023 - PRESENT

Capco Consulting

#### Software Developer II (Promoted in second year)

- Engineered and deployed a full-stack, AWS-hosted conversational AI application using AWS SDKs, provisioning Bedrock, S3, Fargate, Lambda, and VPC resources to automate customer service responses for an enterprise bank.
- Led development of several cloud-hosted AI proof-of-concept solutions and delivered customer-facing demos that secured multiple six-figure contracts for full-scale deployments.
- Developed Spring Boot RESTful APIs and Cucumber automation testing to connect a Tier-1 insurance firm to Fiserv backend system, supporting daily volumes of 5,000+ requests.
- Modernized an XML-based SQL system by deploying a Spring Boot RESTful microservice backed by MongoDB, delivering a 75% read/write performance improvement for enterprise client.

### 2021 - 2022

Petro-Canada Lubricants

#### Business Analytics Intern

- Automated four legacy KPI reports and by building SQL-driven Power BI dashboards sourced from SAP, cutting reporting and analysis time by over 95%.
- Built VBA/Python macros and user friendly UI that generated dynamic Excel calendars for vacation requests, eliminating reliance on a costly third-party subscription tool.

## PROJECTS

### 2025

#### + AI Social Media Automation Tool

- Built a Python automation pipeline and custom DALL-E 3 controller to produce thousands of images for multi-account social media growth, optimizing costs by using Selenium-driven site interactions instead of high-volume API calls.
- Deployed autonomous video-posting workflows across major platforms using Google Drive API and third-party tools enabling hands-free daily uploads.

### 2023

#### + Machine Learning Traffic System Thesis

- Designed Unity simulation and used TensorFlow to convert car proximity and sensor inputs into steering and speed outputs.
- Replaced traffic lights with an ML system achieving 3.6x throughput and 90% less stop time, earning global recognition.

## SUMMARY

Tech enthusiast with 4 years of developer experience, focused on translating business needs and ambiguity into the architecture and implementation of technical solutions. Trusted to lead teams by blending hands-on building with strategic leadership to bring people together and secure major project wins. Excited to collaborate and achieve great things together. Eligible for U.S. work authorization under the TN visa.

## SKILLS

- Languages & Front-End:** Java, Python, TypeScript, JavaScript, C#, C++, HTML/CSS, Angular, React, Tailwind
- Back-End & Cloud:** Spring Boot, AWS, NestJS, Node.js, Azure, RESTful APIs, PostgreSQL, MongoDB, Kafka, Maven
- DevOps & Reliability:** Docker, Git & version control, Cucumber, Jira, JUnit, Postman
- Data Analytics:** SQL, VBA, Power BI, Tableau

## EDUCATION

2018 - 2023

**BACHELOR'S IN COMPUTER SCIENCE**

- Western University
- GPA: 4.0 / 4.0

2020 - 2023

**BACHELOR'S IN BUSINESS ADMINISTRATION**

- Ivey Business School
- GPA: 3.8 / 4.0

## CERTIFICATIONS

- AWS Cloud Practitioner
- SAFe AGILE Development
- SDLC Certification