**DevOps & Backend Developer**

**MOSTAFA FILALI, 4th year Software engineering student**

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# EDUCATION

**LAVAL UNIVERSITY** Quebec, Canada

***Bachelor in Software Engineering* Graduation in December 2025**

* Course: *Models and Languages for Databases, Dev. Web for Engineers, Algorithms and Data Structures for Engineers, Engineering Economic Analysis, Software Engineering Processes, Software Architecture, Software Metric Quality*
* *GPA: 3.45*
* **Strengths: Python, Java, AWS DevOps, experience with Kubernetes**

# JOB EXPERIENCE

**DESJARDINS TECHNOLOGY GROUP Software Developer, Intern** Montreal, Canada

Azure DevOps Summer 2023

* Python development on a backend interacting with databases such as PostgreSQL, Redis, and AzureSQL
* Creating CI/CD pipelines and managing infrastructure as code using YAML/Bash
* Shell script development for production deployments

**MINISTRY OF CYBERSECURITY AND DIGITAL TECHNOLOGY Software Developer, Intern** Quebec, Canada

AWS DevOps Winter 2023

* Optimization of Spring boot microservices, in the API, reducing load time by 2 seconds
* Creating a System Manager Configuration for the Ministry's Cloud Platform on AWS:
  + Encrypted S3 database with KMS, CloudWatch for logging, encrypted EC2 instances.
* Optimized the CI/CD pipeline for iterative deployments.
* Terraform code development and optimization for building 30+ AWS instances, such as EC2, Kubernetes (EKS), and Cloudwatch:
  + Result: $300 per month savings on AWS pricing per team
* Writing Unit Tests with JUnit 5 and Mockito

**OUTLIER AI Math Trainer** Quebec, Canada

Generative Artificial Intelligence Since April 2024

* Analyses of several types of generative AI (GPTs)
* Evaluation of AI queries and outputs on linear algebra questions
* Matrices, vectors, differential calculus, integrals. Etc...
* Part-time hobbies at a distance

# SKILLS

**Structures and algorithms** : **Binary search,** Dijkstra**,** binary tree

**Software and** languages: Python, Java, SQL, REST, C/C++, HTML/CSS, Bash, Vue.js and Javascript

**Tools** : LINUX, AWS (DynamoDB, S3, EC2, KMS), Kubernetes, Jira, Git, Azure, CI/CD, DOCKER

**Languages:** English (fluent) / French (mother tongue) / Arabic (fluent)

# PROJECT EXPERIENCE

**Models and languages for databases**

***Online jewelry store*** Winter 2023

* Database: MySQL
* API and Backend: JavaScript and Python, Front-end: HTML and CSS

**Object-Oriented Software Engineering**

***Cottage Design App*** Fall 2023

* Fullstack Java

**Software Engineering Process**

***Online restaurant reservation tool*** Winter 2024

* Database: MongoDB
* API and backend: Java with Docker

**Web Development for Engineers**

***Web catalogue of restaurants in the Quebec City area*** Winter 2023

* JavaScript and Vue.js

**Final Project in Software Engineering**: Design IV Winter 2025

**Document Censoring Application for CGI Inc.**

* Development of a software solution automating the anonymization of sensitive administrative documents.
* Identification and contextual replacement of personal information (names, addresses, etc.) with fictitious data.
* Implementation of natural language processing techniques and ML algorithms (LLM) in Python., front-end with React

**Course: Design III**

***Intelligent Merchandise Delivery Robot*** Winter 2025

* Development of an autonomous vehicle to transport goods in a city, with the triggering of missions via a developed web interface.
* Implement dynamic route algorithms based on the availability of goods, and avoid collisions with the environment and other vehicles.
* Integration of a Jetson system for real-time data processing (lidar, camera, proximity sensor) and motor control.
* Navigation based on QR code and wall detection via lidar, with adaptation to different urban configurations.
* Python with ROS2, front-end with React