

Mustafa Al-Sakkaf

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EXPERIENCE

Software Engineering Intern

Jan 2023 – Nov 2023

Solace (Middleware company), Integrations Team

Ottawa, ON

- Successfully enabled **10+** teams to test their messaging APIs under real-world network conditions by designing an algorithm for configuring a **TCP** proxy written in **Java**
- Made the above tool widely available by creating a type system, containerizing it using **Docker** and integrating it in an existing library using **Testcontainers** framework
- Implemented a feature that enables users to easily scale the number of consumer applications bound to a queue in the Solace Messaging API for **Python**
- Improved deployment time of Go artifacts by **60%** by refactoring an old **Jenkins CI/CD** pipeline
- Reduced development time for **10+** offshore sales engineers by improving integration of solace software with external systems such as **Kafka** and **RabbitMQ**

Software Engineering Intern

May 2022 – Aug. 2022

Cision (PR/Marketing technology company), Data Ingestion Team

Ottawa, ON

- Led an organization-wide initiative to instrument data ingestion pipelines by developing **OpenTelemetry** tracing POCs and presenting findings to **50+** engineers
- Reduced data intake volume by 50% across AWS components (S3, Kafka, Elasticsearch), lowering load on QA/staging environments
- Instrumented a multimedia content ingestion **REST** service for metrics/logs using Prometheus/Grafana and increased test coverage by 10%
- Developed **Spring Cloud Stream** microservices for content transformation and enrichment according to requirements from multiple downstream teams, improving overall data processing efficiency

PROJECTS

HotelHub | *Python Django, React, PostgreSQL, Docker*

- Designed and implemented **RESTful** API endpoints using **Django** for core hotel management features including room reservation, room addition, and user authentication
- Containerized the full-stack application using Docker and Docker Compose, enabling seamless deployment and development consistency across environments
- Collaborated with frontend developers by documenting all backend API endpoints clearly, accelerating integration and reducing backend-related support issues

ProjectBuddies | *JavaScript, React, Bootstrap, i18next*

- Developed an online platform using **React Bootstrap** for a fictional company
- Implemented faceted-search using filter-groups to allow users to search services quickly
- Used **i18next** to implement website internationalization for English and French
- Hosted the website using **Netlify**

CourseMate | *Java, Android Studio, Firebase*

- Designed and developed a full-stack **Android** application for university course management using Java, Firebase, and Android Studio
- Implemented user authentication with **Firebase** Authentication, enabling secure login for students and faculty
- Collaborated with peers to refine user stories, resolve bugs, and meet project milestones as part of a course deliverable

TECHNICAL SKILLS

Languages: Python, C++, JavaScript

Frameworks: Python Django Framework, Matplotlib, React, NodeJs, Integration Testing

Developer Tools: Git, Docker, AWS, Jenkins CI/CD, Kafka

EDUCATION

University of Ottawa

Bachelor of Applied Science in Software Engineering (9.6 / 10 GPA)

Ottawa, ON

Sep. 2021 – Present