

# Senoussi Al-Nadjib

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## EDUCATION

### Bachelor of Applied Science in Software Engineering

University of Ottawa

September 2020 - December 2024, Ottawa, ON

**Relevant Coursework:** Data Structures, Algorithms, Database Systems, Distributed Systems, Software Architecture, Machine Learning

## SKILLS

**Programming Languages:** C++, Java, Python, JavaScript, HTML, CSS, SQL, TypeScript

**Frameworks & Tools:** React.js, Node.js, Vue.js, SpringBoot, Postman, Scikit-Learn, Angular, TensorFlow, Git, PostgreSQL, MongoDB, Excel

**Software Development:** Full-stack development, Microservice Architecture, REST APIs, UI/UX design, SaaS, QA, AGILE methodology, CI/CD pipelines

**Soft Skills:** Team collaboration, clear communication, problem-solving, adaptability, time management, critical thinking, proactive learning, bilingual

## EXPERIENCE

### Configuration Management

Shared Services Canada

May 2024 - August 2024, Ottawa, ON

- Optimized configuration management processes by mapping **thousands of servers** to applications, significantly reducing manual effort and errors.
- Enhanced documentation workflows by comprehensively detailing server-to-application mappings, leading to a **25% improvement** in troubleshooting efficiency.
- Designed CI/CD pipelines using tools for automating application deployment and decommissioning, achieving a **40% reduction** in deployment times.
- Facilitated cross-department collaboration by gathering requirements using **Excel** and ensuring seamless application integration, improving project delivery rates.
- Led project timelines effectively, using tools like **JIRA** and **Slack** to manage task deadlines, resulting in an on-time completion rate of **95%**.

### Frontend Developer

Service Canada

September 2022 - December 2022, Ottawa, ON

- Revitalized web UI by leveraging **React.js**, **Node.js**, and **TypeScript**, resulting in a **25%** improvement in user engagement and elevated **UX** and visual appeal.
- Developed **dynamic, data-driven** web pages for real-time analytics visualization, empowering users with instant insights to make informed decisions.
- Facilitated weekly team meetings to review project milestones and plan tasks, fostering a collaborative environment and ensuring alignment with goals.
- Improved reducing response times by **30%** by collaborating with the backend team to achieve seamless integration with backend functionalities.
- Achieved **94%** test coverage through rigorous **Java** backend testing using **JUnit**, proactively identifying and resolving issues to ensure system reliability.
- Produced and presented detailed daily analytics reports using **Excel**, delivering accurate and actionable insights to stakeholders for improved decision-making.

### Technical Analyst

Royal Canadian Mounted Police

January 2022 - July 2022, Ottawa, ON

- Developed and maintained **Python** and **C** programs to support internal applications, enhancing system functionality and improving data processing efficiency.
- Analyzed and optimized complex **SQL** queries to enhance database performance and ensure data integrity across multiple enterprise applications.
- Assisted in debugging and improving internal software applications, identifying and resolving issues in **Windows**, **macOS**, and **Linux** environments.
- Managed user permissions through **Active Directory**, **PKI certificates** and **LDAP**, reinforcing data security and ensuring compliance with access control policies.

## PROJECTS

### Customer Relation Management | Java, Spring Boot, React.js, TypeScript, MongoDB, PostgreSQL, Twilio, Docker, Azure Active Directory

- Enabled businesses to connect with customers via Twilio's SMS gateway and perform bulk messaging, scheduled notifications, and response tracking.
- Implemented a secure real-time chat, allowing users to communicate directly with customers while maintaining safe interactions between components.
- Secured APIs for inter-service communication using token authentication and role-based access control, ensuring safe component interactions.
- Designed a microservices architecture, separating services to ensure modularity and high availability, following the domain-driven design methodology.
- Used MongoDB and PostgreSQL to store customer data and message histories, enabling fast data retrieval and compliance with data residency rules.
- Incorporated Azure Active Directory for secure user authentication, reinforcing data security and access control across the platform.

### Hotel Room Booking Website | Spring Boot, React.js, TypeScript, Java, Docker, PostgreSQL, WebSocket

- Developed a comprehensive hotel booking platform that enables users to search for available rooms, make reservations, and complete payments online.
- Implemented a user-friendly interface with ReactJS, allowing customers to filter rooms by amenities, price, and availability for an efficient booking experience.
- Utilized Spring Boot for backend services to handle reservation processing, payment integration, and user authentication, ensuring secure transactions.
- Leveraged PostgreSQL for efficient data storage and retrieval, enhancing performance for searches and booking history tracking.

### Basketball Match Predictor | Python, TensorFlow, Scikit-Learn, Django, React.js, Pandas

- Developed a web application that predicts a basketball match's results for an upcoming game based on historical data and current conditions.
- Utilized Scikit-Learn to train machine learning models on team performance data, team matchups, and game-day availability.
- Built the server-side logic with Django, handling data processing, model inference, and API services to deliver predictions to the frontend.
- Designed a user-friendly interface using React.js, allowing users to input game parameters and view predicted stats such as points, rebounds, and assists.
- Provided visual analytics, such as key contributing factors, to enhance user decision-making and engagement.