# Saif Abdelkefi

## Full Stack Engineer

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#### **SUMMARY**

- Full stack developer with 3+ years of experience delivering applications from concept to deployment
- Specialized in TypeScript and Python, currently developing skills in scalable AI-powered solutions
- Strong communicator with the ability to bridge technical and non-technical teams, translating business needs into effective engineering solutions

#### RELEVANT SKILLS

Programming Languages: TypeScript, Python, Java, SQL, R

Cloud: AWS, GCP, Vercel, Docker

Frontend Web: Next.js, React, Redux, Zustand, SWR, Three.js, HTML, JSX, CSS

Backend Web: Node.js, NestJS, WebSocket, Prisma, Mongoose, REST

Al: Langchain, Hugging Face, Pytorch, NLTK, pandas

Databases: PostgreSQL, MongoDB

Soft skills: Cross-team collaboration, autonomy, ownership mindset, intellectual curiosity

Languages: Arabic, French, English

### PROFESSIONAL EXPERIENCE

#### Founding Engineer, Power Dime, Montreal, Canada

Jul 2025

Voluntary contribution during the startup's early phase; job currently paused pending next-stage development

- Collaborated on early-stage technical decisions and architecture planning of the MVP, working closely with the internal founder team and external design partners at OpsGuru
- Designed and implemented a document upload feature to complement the RFP form, integrating a Next.js frontend, NestJS backend API, Google Cloud Storage for file handling, and PostgreSQL for storing file paths references

## Full Stack Developer, PixMob, Montreal, Canada

May 2023 - Aug 2024

## Project1 - PixMob Platform

An internal system designed to manage and track the state of PixMob's event technology ecosystem including projectors, lighting devices, firmware, avenues, staff, etc.

- Architected and deployed a scalable over-the-air device firmware update system (over 90,000 devices) integrating front-end, back-end, and a bridge application for real-time device polling and updating
- Designed database schemas and relationships in PostgreSQL and developed and maintained a scalable RESTful API using Next. Js to streamline tailored access to the database containing the inventory and resources for internal employees and clients
- Built reusable dynamic UI React components including submission forms and customizable composable table component for edition and viewing modes

#### Project2 - The Visualizer

A Web application for 3D light shows visualization according to the PixMob DMX lighting Protocol

- Designed, developed and tested features including 3D camera transitions and 3D avenue rendering using Three.js and React TypeScript following agile and version control best practices
- Created a dynamic and intuitive UI/UX for control panels and tools, integrating and customizing open-source UI libraries through an iterative user-driven design process

#### Intern Developer, Raymond Chabot Grant Thornton, Montreal, Canada

May 2022 - Apr 2023

- Designed and developed a PowerBI integrated application to streamline the management of financial statement comments, improving collaboration between CFOs and accountants
- Assisted in a product conference to present the application to potential enterprise clients and managing live Q&A, addressing technical inquiries. Successfully sold the application to two clients for \$80,000+

#### **EDUCATION**

#### Bachelor of Science, McGill University, Montreal, Canada

Sep 2020 - Dec 2024

- Major in Computer Science, minor in Mathematics
- Relevant classes: Database Systems, Software Design, Distributed Systems, Natural Language Processing, Data Science, Statistics, Probability, Discrete Mathematics, Management Essentials
- Independent Research Project Human Computer Interaction: Student Mental Health and Wellbeing Apps

Exchange Semester, Lund University, Lund, Sweden

Sep 2023 - Dec 2023

#### **RELEVANT PROJECTS AND ROLES**

#### **GraphCards - Personal Project (Work in Progress)**

PRESENT

- Building a flashcards web application that visualizes relationships between cards as an interactive graph for a deeper understanding through contextualization facilitating memorization
- Leveraging OpenAI API and machine learning techniques, including word embeddings and clustering, for intelligent context-driven connections

#### Sarcasm Detector - NLP School Project

Sep 2024 - Dec 2024

- Achieved high accuracy in distinguishing sarcastic from literal statements by fine-tuning hyperparameters of pre-trained language models for optimal performance
- Explored linguistic patterns and contextual cues that signal sarcasm in written language

### Executive member in CodeJam, the biggest annual hackathon in McGill

Sep 2024 - Nov 2024

- Developed registration and team matching features on the CodeJam website for over 500 users
- Led a technical workshop on Node.js, MongoDB for 50+ attendees, covering backend development best practices and API integration to a front-end application
- Mentored hackathon participants assisting them throughout their project architecture and design decisions ensuring the successful execution of their ideas

#### 2022 World Cup Predictor - Project at McGill Artificial Intelligence Society

Sep 2022 - Dec 2022

- Trained a machine learning model that accurately predicted the 2022 FIFA World Cup final between France and Argentina, correctly crowning Argentina as the winner
- Build a user facing Django application allowing users to select the teams as input to feed it to the model and display the prediction result