



# HOUSSEM SAAFI

SOFTWARE ENGINEERING STUDENT 📞 +216 26 211 344

## ◦ DETAILS ◦

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## ◦ LINKS ◦

[LinkedIn](#)  
[Github](#)

## ◦ SKILLS ◦

JavaScript - TypeScript
React
Angular
Vue.js
HTML & CSS
Node.js
Spring Boot
Java
NestJS
Python - Flask
PHP - Symfony
C - C++
SQL - NoSQL
PostgreSQL - MySQL
MongoDB
CI/CD Pipeline Deployment
Git/Github
Azure Cloud
Azure Services
Docker
Terraform
Ansible

## 👤 PROFILE

A Software Engineering Student with skills and knowledge in the fields of Web Development, Machine Learning, Prompt Engineering, and Devops. I love working in international setups and collaborating with teams to reach our fullest potential. Currently seeking an end-of-studies master thesis internship in the field of Software Engineering, with an anticipated duration of six months.

## 🎓 EDUCATION

**Software Engineering Degree, National Institute of Applied Science & Technology, Tunis, Tunisia**

September 2019 — September 2024

- INSAT is ranked among the top engineering schools in Tunisia and the region.
- Admission is very competitive (Top 5% students in the nation).
- Courses include:
- Web Development, OOP, Systems & Database Conception, Design Patterns, Hadoop, Spark, Networks Architecture, Linux Scripting, Distributed Systems, Algorithms/ data structures, Deep Learning, etc..
- *15.13/20 GPA, ranked 19th/400*

**High School Diploma, Pioneer High School of Bizerte, Bizerte, Tunisia**

September 2014 — July 2019

- I Ranked 1st in the region ( Bizerte ) & 40th in Tunisia at the Baccalaureate National Exam.
- *18.10/20 GPA*

## 💼 EXPERIENCE

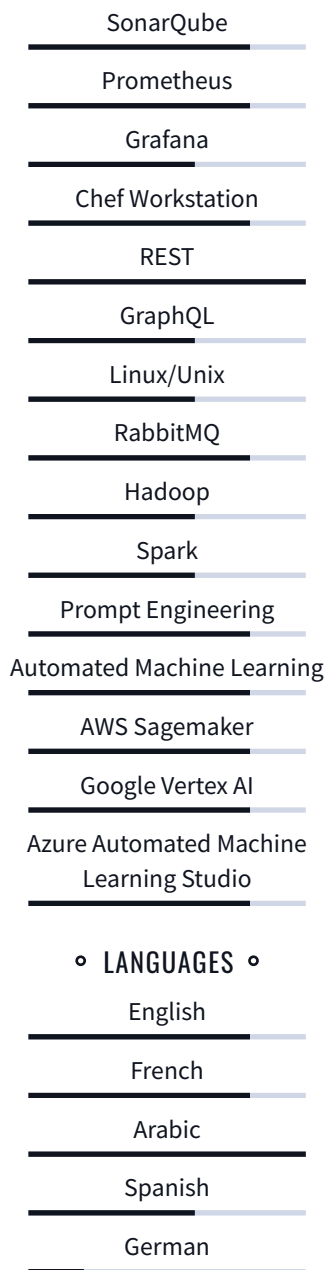
**Fullstack Software Engineer - Part-Time at taico GmbH, Freelance - Remote**

March 2023 — Present

- Worked on implementing new features in a pre-designed Digital Marketing Data Driven Web Application.
- Used React to create reusable UI components, enhancing the efficiency and scalability of the project.
- Improved the application performance by reducing over 60% of fetching time and expanded its capabilities on the backend side. (Flask)
- Employed Redux to efficiently manage the application's state and facilitate seamless data flow.
- Debugged software, identified root causes, and proposed solutions to software issues and participated in software maintenance.
- Conducted thorough security scans on the application to fortify its resilience against potential vulnerabilities using SonarQube, and Snyk.
- Collaborated in authoring a comprehensive technical documentation for the frontend application.

**Software Engineer Intern - Part-Time at Jina AI, Freelance - Remote**

September 2023 — December 2023



- Worked on adding novel features to PromptPerfect: A cutting-edge prompt optimizer for large language models such as GPT4, ChatGPT, MidJourney, StableDiffusion, etc.
- Used Vue.js and the Quasar framework for the development of the agents' simulations page, node.js for backend development and Firebase functions.
- Acquired good knowledge in the field of prompt engineering.
- Ensured continuous testing, debugging and fixing of the application's issues.

### Fullstack Web Freelancer at Upwork, Freelance - Remote

August 2022 — July 2023

- Developed a web application that stores conversations using Spring Boot and React.
- Implemented a CRUD react app that displays logs fetched from external and internal APIs.
- Developed a Spring Boot Restful API that integrates Swagger UI
- Made a java based CLI that synchronizes two directories in an optimized way. Made use of the picocli library.
- Worked on multiple algorithmic, database administration and application installation and configuration tasks.
- Got hired as a part-time tech consultant at an American based company - TechSpotDev to work on multiple web application development tasks.

### MLOps Engineer at Wimly Consulting, Tunis

October 2022 — March 2023

- Established Automated Machine Learning jobs using cloud solutions on Google Cloud's Vertex AI, Microsoft Azure ML Studio and AWS AutoML tools - Amazon SageMaker.
- Trained models for Facial Expression Recognition (FER) and deployed them.
- Bench-marked the different solutions provided by the different platforms.

### Fullstack Web Developer Intern at Vneuron, Tunis

July 2022 — September 2022

- Helped the company ensure better traceability to all of its API calls.
- Benchmarked different solutions allowing better traceability of all the different API and microservices calls.
- Made use of the Aspect Oriented Programming.
- Employed SpringBoot Interceptors to save requests payloads.
- Leveraged the Zipkin distributed tracing system.

### Web Development and Programming Instructor at Apprentus

April 2021 — September 2022

Taught students courses and helped the gain a deeper understanding about:

- Object Oriented Programming, Java Programming.
- SQL and databases.
- Web Development using PHP, Spring, Angular and React.

## ★ PERSONAL PROJECTS

### Aalouchi

March 2023 — July 2023

- Developed an application dedicated for the sales of agricultural goods using React for the frontend side and Nest.js for the backend.
- Created a CI/CD pipeline using Jenkins that integrates various stages dealing with application testing, building and deploying
- Employed Docker to build, and push the image to the Docker Hub
- Used Nagios to run application health checks
- Integrated SonarQube into the pipeline to generate application's security reports

- Used terraform to create two resource groups in Azure; one for development purposes and the other for production. Each resource group included a container instance providing a live running application exposed on a public IP
- Ensured the Application monitoring through the use of Prometheus and Grafana, and set up a monitoring dashboard on the Azure platform.

### Medical Chatbot Web Application for disease forecasting & Appointment Setting

February 2023 — June 2023

- Developed and deployed advanced Machine Learning and NLP models to accurately forecast patients' diseases.
- Ensured application security by using tools like SonarQube and Snyk, conducting robust vulnerability scans, and proactively addressing potential risks.
- Implemented the Secure Software Development Life Cycle (SSDLC) methodologies to emphasize secure coding practices, threat modeling, and regular security testing.
- Orchestrated a seamless CI/CD pipeline using Github Actions. Leveraged Azure Container Service to publish the new Docker versions on Docker Hub.
- Deployed the application on Azure App Service, prioritizing a TLS/HTTPS connection to guarantee secure and encrypted data transmission.

### MyWay Mobile Application

March 2022 — June 2022

- Mobile app to digitalize the transportation system in Tunisia. Built using Flutter.

### Distributed Messaging System

November 2021 — January 2022

- A java application that synchronizes between different databases using the RabbitMQ open-source message broker

### E-commerce Website

April 2021 — June 2021

- E-commerce website allowing customer/clients interactions using the chat system build using HTML/CSS, JavaScript, PHP, MySQL, Ajax, jquery



## EXTRA-CURRICULAR ACTIVITIES

### Vice President at Project Axis - IEEE INSAT, Tunis, Tunisia

November 2022 — June 2023

### Core Team Member at Google Student Developer Club, Tunis, Tunisia

October 2020 — June 2021

### Web Developer at Junior Enterprise INSAT, Tunis, Tunisia

September 2021 — June 2022



## ACHIEVEMENTS

### Kennedy-Lugar YES Alumnus, Fort Dodge, Iowa, USA

August 2016 — June 2017

*Scholarship Program funded by the US Department of States with a Rigorous, Merit-Based selection process (less than 5% accepted).*

### The World Food Prize Alumnus, Ames, Iowa, USA

February 2017

*The World Food Prize is an international award recognizing the achievements of individuals who have advanced human development.*