# Sarra RHOUMA

## 5th-Year Computer Engineering Student.

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#### **Profile**

I am a final-year Computer Engineering student at École Polytechnique Sousse, specializing in Artificial Intelligence and Machine Learning. With expertise in Agile methodologies, full-stack development, and database management, I bring a well-rounded technical foundation to AI-driven projects. My hands-on experience includes building predictive models using Random Forest and Gradient Boosting, as well as Natural Language Processing (NLP) for text analysis and sentiment prediction. Proficient in Python and its AI/ML frameworks, I combine technical proficiency with strong leadership skills honed through active roles in student organizations, making me well-prepared to excel in AI-focused initiatives for my final-year project.

#### Education

2022 - present	Software Enginnering
Sousse, Tunisia	Ecole Polytechnique Sousse 🖸
	• Frameworks: Symfony, Laravel, React JS, Flutter, SpringBootSpecializations:
	<ul> <li>Artificial Intelligence, Machine Learning, Data Processing, Data Mining, NLP, Power BI</li> </ul>
	Database Management: SQL and NoSQL
	Architecture: SOA, Design Patterns, DevOps
2019 - 2022	Bachelor's Degree in Electromechanics
Sousse, Tunisia	ISSAT Sousse
	Skills: SolidWorks, CATIA, Maintenance, Embedded Systems, Arduino

### **Professional Experience**

2024/07 - 2024/08	Summer Internship in Software Development	
Sousse, Tunisa	Alchemy Code ☑	
	• Developed an accounting application using Node.js Express.js and Next.js	
	• Integrated Docker for deployment in isolated environments	
2023/07 - 2023/08	Summer Internship in Software Development	
Sousse, Tunisia	CodactSolution	
	• Designed and helped develop an online education platform.	
2022/02 2022/05	Intermedia in Industrial Design	
2022/02 - 2022/05	Internship in Industrial Design	
2022/02 – 2022/05 Sousse, Tunisia	La rose BLANCHE	
	La rose BLANCHE	
	La rose BLANCHE  • Designed an industrial mixer using SolidWorks	
Sousse, Tunisia	<ul><li>La rose BLANCHE</li><li>Designed an industrial mixer using SolidWorks</li><li>Automated the mixing process</li></ul>	

• Learned how to remotely regulate temperature using Arduino

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2025 – 2025	<ul> <li>Store Management Application with BI Integration  MERN , BI</li> <li>Developed a comprehensive store management application with integrated Business  Intelligence (BI) features to streamline retail operations and enhance data-driven decision-making.</li> </ul>
2025 - 2025	<ul> <li>Data Analysis and Dashboard Development for Breaking Bad Data Processing</li> <li>Scraped and cleaned IMDb data using BeautifulSoup.</li> <li>Conducted exploratory data analysis with visualizations.</li> <li>Built a classification model (Random Forest) to predict review sentiments.</li> <li>Developed an interactive dashboard with Dash/Plotly.</li> </ul>
2024 - 2024	<ul> <li>Coworking Space Managment Application</li> <li>SpringBoot, React</li> <li>Backend: Development of a RESTful application using Spring Boot, secured with Spring Security and Spring Data JPA.</li> <li>Frontend: Dynamic user interface consuming the REST APIs exposed by the backend, built with React.</li> </ul>
2024 - 2024	<ul> <li>Air Quality Prediction ☑</li> <li>AI Project</li> <li>Used linear regression, Random Forest, and Gradient Boosting for predictive modeling</li> </ul>
2024 - 2024	<ul> <li>NLP Recipe Title Prediction In Restaurants ☑</li> <li>NLP Neural Language Programming</li> <li>NLP and machine learning techniques to predict recipe titles based on a list of ingredients. It combines a FastAPI backend and a React frontend for a seamless user experience.</li> </ul>
2024 - 2024	<ul> <li>Order and Purchase Management Application ☑</li> <li>MERN Stack</li> <li>Developed a MERN application for order and purchase management</li> <li>Created a responsive e-commerce website</li> </ul>
2024 - 2024	Online Education Platform ABAJIM  ABAJIM  Added reading icons on PDF files to make traditional school manuals more dynamic.
2023 - 2023	<ul><li>Hotel Management Application</li><li>Symfony</li><li>Developed a backend application for managing hotels and clients with Symfony</li></ul>

## Certifications

- IT-Specialist Databases ☑
- $\bullet$  Microsoft Azure AI Fundamentals  $\ensuremath{\square}$

- IT-Specialist Python ☑
- PMI-Project Managment Ready ☑

• CCNA 1-2

#### **Skills**

UML Design, Python, SQL & NoSQL Databases

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Symfony, SpringBoot, Java, Agile Methodologies (Scrum), MERN

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Leadership, Adaptability, Time Management, Critical Thinking, Creativity, Empathy

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### Organisations

2024 – 2025 Sousse, Tunisia	IEEE EPS SB Active Member
2022 – 2025 Sousse, Tunisia	Radio Club Poly Estim Secretary General, Vice President
2022 – 2024 Sousse, Tunisia	ACM Association of Computer Macginig Secretary General,

#### Languages

• French: DELF B2 • English: TOEIC B2 • German: A1