



# RABIE ZERRIM

## SOFTWARE ENGINEERING STUDENT

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## PROFILE

Final year engineering student seeking a graduation internship (PFE). Specialized in full-stack development, AI/ML, NLP and microservices architecture.

## CERTIFICATIONS

- Samsung Innovation Campus Certificate
- [AWS Academy Graduate - Cloud Foundations](#)

## SKILLS

- **Backend:** Spring Boot, Symfony, Flask/FastAPI (Python), .NET (C#), NestJS
- **Frontend:** Angular, React.js, Vue.js, TypeScript, JavaScript, Flutter, JavaFX
- **DevOps & CI/CD & Testing:** Docker, GitLab CI, Git, Maven, Jest, E2E Testing, Kubernetes, Jenkins, Prometheus, Grafana, AWS
- **Databases:** PostgreSQL, MySQL, MongoDB, MariaDB, H2, Firebase
- **Data & AI:** Scikit-learn, NLP, LangChain, Hugging Face, OpenSearch, Power BI, Gemini API, OpenAI, Classification, SVM, TensorFlow/Keras, PyTorch, Transfer Learning, CNN Architectures, Statistical Validation, Model Deployment
- **Design & Collaboration Tools:** Figma, Jira, Trello, SonarQube, XRay

## EXTRACURRICULAR ACTIVITIES

### Team Leader & Vice President AIESEC Tunisia 06/2022 – 01/2023

- Led a team to establish international partnerships.
- Implemented a performance tracking and audit system improving operational standards

### Web Developer & Technical Content Specialist AIESEC Korea and Denmark 09/2022 – 03/2023

#### Remote Work

- Maintained and optimized websites: improved UX and automated content generation
- Implemented developed web components for international campaigns

## LANGUAGES

English - C1, APTIS

French- B2, TCF

## EDUCATION

- **Software Architecture Engineering**  
*Private Higher School of Engineering and Technology - ESPRIT* 2023-2026
- **Bachelor's in Information Systems Development**  
*Higher Institute of Technological Studies - ISET* 2019-2022
- **Bachelor's in Computer Science - Ibn Sina High School** 2019

## EXPERIENCE

- **Development and Optimization Internship** *Axess Logistique* **Symfony, NestJS , Gemini API, Docker, JEST** 06/2025 – 08/2025
  - Optimized an AI assistant (Gemini) handling 8,000+ monthly tickets: +30% accuracy and 40% reduction in average response time
  - Developed an analytical ticket tracking dashboard: 25% improvement in support efficiency
  - Reduced system errors by 30% through targeted fixes, Symfony + Nest.js stack improvements, and implementation of automated tests (Jest)
- **Software Development Internship** *Complexe culturel pilote des jeunes* **Java, Vue.js, MySQL** 06/2024 – 08/2024
  - Developed an HR application (Java/MySQL) for salary management, leave/holidays, employee onboarding and offboarding, reducing processing time by 40% and improving planning by 20%
- **AI Developer Intern - Graduation Project** *Center Mon fils* **Django, JavaScript, HuggingFace** 01/2022 – 06/2022
  - Developed an educational platform analyzing 200+ monthly interactions for 20+ children with 96% accuracy in emotion recognition
  - Implemented a real-time behavioral analysis system (Hugging Face Transformers): 96% accuracy facial recognition, multi-class emotion detection and automated generation of 50+ weekly analytical reports
  - Architected an end-to-end data pipeline processing 50+ hours of video monthly with 80% compression and real-time educator reporting

## PROJECTS

- **Coding Factory: Educational Platform**  
*SpringBoot, Angular, Python, MySQL, Flask, Docker*
  - Designed a complete partnership lifecycle management system: intelligent discovery (Selenium/Flask) and automated ranking
  - Integrated third-party APIs (Zoom, HelloSign, PDFBox) to automate contracts, meetings and document generation
  - Deployed a microservices architecture (FeignClient, Docker) ensuring scalability and maintainability
- **NeuroScan: AI-Powered Brain Tumor Classification - Samsung Innovation Campus**  
*TensorFlow/Keras, Python, OpenCV, Scikit-learn, Statistical Analysis* 09/2024 – 11/2024
  - CNN achieving 88.4% accuracy classifying 4 tumor types from 5,600 MRI scans
  - Led ablation studies proving CLAHE criticality (44% drop) with statistical validation (McNemar p<0.001) and 18+ visualizations
  - Provided evidence-based deployment recommendations (mandatory CLAHE, grayscale for 66% cost savings) for potential clinical screening tool
- **AI Student Grouping System**  
*React, TypeScript, Node.js, Python, scikit-learn, OpenAI, TailwindCSS, MySQL*
  - Intelligent clustering analyzing 500+ student profiles (94% accuracy) and optimizing 100+ groups while reducing management time by 60%
  - Full-Stack Architecture: Angular frontend, Flask REST API, complete ML pipeline (preprocessing, feature engineering, Silhouette/ARI metrics)