Rguez Sayf Eddine

Full Stack Developer

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Profile

Third-year engineering student specializing in Software Architecture Engineering at ESPRIT. Passionate about full stack development, software architecture, and technological innovation. Dynamic, autonomous, and highly adaptable.

Technical Skills

- **Languages:** Java, TypeScript, Python, C++, C#, C, PHP
- **Frameworks:** Spring Boot, Angular, Symfony, Qt, JavaFX, .Net, Flutter
- **Web:** RESTful APIs, Keycloak, Bootstrap, SCSS
- **Machine Learning:** Scikit-learn, Flask
- **Desktop:** JavaFX, Qt (C++)
- **Games:** SDL (Ubuntu), Arduino
- **No-Code:** FlutterFlow
- **Databases:** JPA/Hibernate, SQL
- **Tools:** Git, Maven/Gradle, Agile

Professional Experience

2025 Engineering Intern – Class Council Management System, *ESPRIT TECH*, Ariana, Tunisia
- Developed a full-stack mobile application for managing class councils and school schedules using Flutter (Material Design) and Spring Boot REST API backend
- Integrated Keycloak for secure authentication and role-based user management (Administrator / Teacher) with JWT authentication
- Designed and developed a complete schedule management system with calendar view (monthly/weekly), agenda items, and automatic conflict detection
- Implemented a real-time notification system with automatic reminders (2 hours before a session, 15 minutes before an agenda item) to optimize appointment management
- Created an interactive dashboard displaying dynamic statistics on classes, teachers, schedules, and users with real-time visualizations

2024 Corporate Immersion Intern – HR Management Desktop Application, *F3T, Fraternité Tunisienne de Traitement Thermique*, Zaghouan, Tunisia
- Developed a desktop human resources management application using JavaFX for an industrial company
- Implemented a complete HR management system including: employee management, daily time tracking, leave requests, monthly performance monitoring, and absence management
- Developed employee features: clock in/out, justification of unexcused absences, and leave request submission with status tracking
- Integrated a PDF report generation system for performance reports and time tracking history for analysis and archiving
- Implemented a real-time notification system for tracking actions and statuses, improving communication between employees and managers

2022 Intern (Human and Social Training Internship), *F3T, Fraternité Tunisienne de Traitement Thermique*, Zaghouan, Tunisia
- Discovered the professional world and industrial environment
- Participated in human and social training activities

Projects

2025 **SmartMediShop - Medical E-Commerce Mobile Application**
- Developed a full-stack mobile e-commerce application for medical products using Flutter/Dart with Firebase backend integration
- Built comprehensive user management system with role-based access control (Admin, Nurse, Customer, Delivery Guy) and authentication via Firebase Auth and Google OAuth
- Implemented Node.js/Express REST API backend with Firebase Admin SDK for push notifications, email services, and real-time data synchronization
- Designed and developed appointment scheduling system with calendar integration, request management, and real-time notifications for healthcare professionals
- Integrated Firebase Cloud Messaging (FCM) for push notifications, SQFlite for offline data storage, and geolocation services for delivery tracking
- Built admin dashboard with analytics, user management, payment processing, and delivery management features with real-time updates

2025 **SmartMediShop - AI-Powered Fraud Detection System**
- Developed a full-stack e-commerce fraud detection system combining Machine Learning models with rule-based logic
- Built Angular frontend with Material Design and Spring Boot REST API backend with JWT authentication
- Implemented Python Flask API with hybrid fraud detection using Isolation Forest and Random Forest models
- Trained and deployed ML models (Scikit-learn) with feature engineering for real-time transaction analysis
- Integrated ML models with Spring Boot backend via REST API for seamless fraud detection processing

2025 **Intelligent Support Management System with ML Recommendation**
- Developed a complete full-stack web application with Spring Boot (backend) and Angular (frontend) including a support and ticket management system
- Implemented an intelligent recommendation system based on BERT and TF-IDF to automatically recommend the top 3 administrators to resolve each ticket based on their skills and the problem description
- Designed and developed a complete ticket system with public comments, internal comments for administrator communication, and real-time notification system for optimal user experience and accelerated problem resolution
- Developed and deployed Machine Learning models with Flask (Python) and Scikit-learn for semantic ticket analysis and intelligent matching with administrator profiles
- Integrated the ML recommendation engine with the web application via secure REST APIs and Keycloak integration for user management and authentication
- Built a responsive and modern user interface with real-time ticket tracking, push notifications, and analytical dashboard for monitoring resolution performance

2024 **Desktop and Web Application with Symfony**
- Developed a desktop application with JavaFX
- Developed a web application with Symfony (PHP)
- Used a common database for both applications
- Synchronized and managed data between both platforms

2024 **No-Code Mobile Development**
- Built mobile applications with FlutterFlow
- Responsive design
- Rapid prototyping

2023 **PHP Web Application**
- Developed a dynamic web application in native PHP
- Created user-friendly interfaces
- Managed database and users

2022 **SDL Game Development**
- Created a game with SDL on Ubuntu
- Implemented game mechanics
- Integrated controller with Arduino
- Cross-platform optimization

Education

2022–present   **Engineering cycle (3rd year), major in Software Architecture Engineering**, *ESPRIT (Private Higher School of Engineering and Technology)*, Ariana, Tunisia

Languages

French (Fluent), English (Fluent), Arabic (Native)

Certifications

2025   **AWS Academy Graduate - Cloud Foundations** – AWS Academy (20 hours)
2025   **Hashgraph Developer Course** – Hedera (Distributed Ledger Technology)
2023   **CCNA: Switching, Routing and Wireless Essentials** – Cisco Networking Academy (NetAcad)

Additional Skills

Agile Development, Clean Code, Design Patterns

Interests

Sports (football, hiking, etc.), Chess, Volunteering, Technology watch, Excursions, travel and adventure

Extracurricular Activities

- Former Scout member (Group Leader) for 4 years
- Participated in an international camp in Turkey
- Event manager during the National Endurance Day