



Saad tachrimant Backend & Data Engineer

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🌐 saad-tachrimant 🔗 saadtachrimant.com

Software engineer specialized in building **data-intensive systems, ML pipelines, and scalable backend architectures**. Experience across **production backend systems (Java/Spring Boot)** and **ML-driven platforms (Python, distributed systems)**. Built ML pipelines and backend services using **Python, Java and REST APIs**

Strong focus on:

- system reliability & scalability
- data pipeline design & automation
- end-to-end ML workflows (training → deployment → monitoring)

Comfortable working in fast-paced startup environments with high ownership and evolving requirements.

🎓 EDUCATION

Ibn Tofail University, Master of Science
- *Big Data & Cloud Computing*
12/2021 - 12/2023 | Kenitra, Morocco

Cadi Ayyad University, Bachelor of Science - *Distributed Information Systems*
09/2018 - 06/2021
Marrakech, Morocco

🌐 LANGUAGES

Arabic | French | English

🧠 SKILLS

Backend & Software Engineering: Java 8+, Spring Boot, Spring Data, Spring Security | Python, Flask | System design | Scalable architecture | Distributed systems | RESTful APIs, Microservices Architecture | JWT Authentication, API Integration | Maven, Hibernate, Flyway | Docker, CI/CD (Jenkins, GitLab CI)

Data Engineering & Analytics: Python, Pandas, NumPy | Data preprocessing & feature engineering | Time-series modeling & forecasting | Data cleaning, validation, and imputation | SQL (PostgreSQL, MySQL), MongoDB

Applied Machine Learning: Anomaly Detection: XGBoost, Autoencoders, Local Outlier Factor (LOF) | Time-Series Forecasting using LSTM, GRU, and RNN architectures | Neural Networks: strong practical understanding of neural networks, training behavior, and evaluation of deep learning models (training dynamics, overfitting control, feature scaling, and evaluation) | Model evaluation & performance analysis (cross-validation, error metrics, stability analysis) | ML model integration into backend systems (inference APIs, batch & real-time prediction) | Distributed & federated learning (applied and experimental contexts)

📁 PROFESSIONAL EXPERIENCE

AI Research Engineer - Applied ML & Data Systems,
UM6P - College of Computing
11/2024 - Present | Benguerir, Morocco

- Designed and deployed **end-to-end ML pipelines (data ingestion → training → inference)** on real-world IoT data systems.
- Built data preprocessing pipelines handling **38% missing data and 18% outliers**, improving model reliability on real-world datasets
- Contributed to **distributed and peer-to-peer learning frameworks** using IoT devices (Raspberry Pi clusters).
- Delivered reproducible experiments with clear performance metrics and deployment-oriented design.

Role focused on applied ML systems and engineering outcomes rather than purely academic research.

Senior Full Stack / Backend Developer, ENOAR&T
04/2023 - 11/2024 | Rabat, Morocco

- Participated in the **design and development of a hospital management ERP** based on microservices architecture.
- Developed and maintained **Spring Boot REST APIs** deployed in production healthcare environments.
- Implemented secure authentication and authorization using **Spring Security and JWT**.

- Managed and optimized **PostgreSQL databases**, including schema design and migrations.
- Fixed production bugs, implemented new features, and ensured stable deployments across environments.
- Collaborated with cross-functional teams following **Agile/Scrum** methodologies.

Technologies: Java, Spring Boot, Microservices, PostgreSQL, Docker, Angular, Jenkins, Git, Jira

Freelance Full Stack Developer, Z Smart Services

08/2021 – 04/2023 | Marrakech, Morocco

- Delivered multiple client projects as a **freelance developer**, from requirements analysis to deployment.
- Designed and developed a **secure e-learning platform** with REST APIs and authentication.
- Built a **data labeling platform** for images, text, and video datasets.
- Provided maintenance, bug fixing, and feature enhancements based on client needs.

Technologies: Spring Boot, Java, MySQL, MongoDB, Flask, Angular, Vue.js