Hachem **Squalli EL Houssaini**

ENGINEERING STUDENT (SEEKING PFA) · FULL-STACK & AWS CLOUD SECURITY

Fès, Morocco

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Fourth-year Software & AI Engineering Student (ENSA Fès) **seeking a 2-month PFA internship (July-August 2026)**. **Full-Stack Developer** (Spring Boot/Angular) with a specialty in **AWS Cloud Security** and VPS management. As SecOps Technical Lead, architected high-availability infrastructure for 300+ users. Proven track record in stabilizing production environments, notably resolving critical Docker/Maven conflicts at IR4LAB.

Education

Ecole Nationale des Sciences Appliquées (ENSA) — *Fès, Morocco*

STATE ENGINEER IN SOFTWARE ENGINEERING & AI (ILIA) — *Sep. 2022 - 2027 (Exp.)*

Integrated 5-year curriculum including Preparatory Cycle and Engineering Cycle specialization.

Experiences

SecOps ENSAF — *Fès, Morocco*

TECHNICAL LEAD (STUDENT CLUB LEADERSHIP) — *Sep. 2024 - Present*

- Architected production infrastructure for "CyberTech Day V3.0" and "Tech-Jam 2026" (300+ participants) with 100% uptime.
- Orchestrated microservices via **Docker Swarm/Compose** and deployed a centralized **Grafana, Loki, and Promtail** stack for real-time observability and traffic monitoring.
- Implemented **Cloudflare WAF/CDN** and Nginx Reverse Proxy (SSL/TLS) to mitigate DDoS attempts, handling 328k+ requests.
- Developed experimental CNN-based anomaly detection (based on IEEE TNSM) for real-time malicious flow monitoring.

IR4LAB Africa — *Remote / Fès*

FULL-STACK DEVELOPER INTERN — *Jul. 2025 - Aug. 2025*

- Stabilized CI/CD by resolving critical **Docker/Maven** conflicts, restoring 100% build reliability for the DocCerts blockchain platform.
- Refactored core architecture to decouple i18n labels from backend logic, eliminating HTTP 400 errors and optimizing RTL/Arabic UI.

Projects

LUCID: AI-Powered DDoS Monitoring Dashboard — 🔗 *Live Demo*

PYTHON, FASTAPI, TENSORFLOW, DOCKER, NGINX — *2025 - 2026*

Built a real-time CNN detection system (IEEE TNSM-based) to classify malicious flows with a 1.7s response time and automated mitigation.

PedalPulse: Multi-Model Bicycle Demand Prediction — *Research Project*

MACHINE LEARNING (XGBOOST, CATBOOST) — *2025*

Evaluated a multitude of ML models to predict city-wide demand, documenting results in a formal **IEEE-format paper**.

DocuGen Pro: SaaS AI Document Generation — *Academic Project*

SPRING BOOT, ANGULAR, GROQ API (LLAMA 3) — *2026*

Engineered a Potential SaaS platform utilizing **Llama 3** for dynamic template generation with stateless **JWT authentication**.

ShopEase: High-Performance AI E-Commerce — 🌐 *Live Site*

ANGULAR, FASTAPI, SQLITE, TENSORFLOW , AUTOENCODER , IN FUTURE RL — *2026*

Architected a recommendation system serving **35GB+ image data** via custom **ZIP-Stream Indexing**, achieving **sub-100ms response times**.

Skills

Cloud & DevOps	AWS (EC2, VPC, S3, IAM), Docker , Docker Compose, Nginx, Terraform, GitHub Actions (CI/CD), Linux VPS
Full-Stack Dev	Angular (v12/17), React , Spring Boot, Java, FastAPI, ExpressJS, TypeScript, Node.js, RESTful APIs
AI & Data	TensorFlow, Scikit-learn, Computer Vision, Stable-Baselines3 (Reinforcement Learning), Machine Learning, Pandas, NumPy
Architecture	System Design, OOP (UML, Design Patterns), Separation of Concerns (SoC)
Professional Tools	Git (GitFlow), GitHub, Jira (Agile), Maven, Docker Hub

Honors & Certificates

2026	**AWS Solutions Architect**, Associate (Preparation In-Progress, Exp. 2026)	*Online*
2026	**System Design Cert.**, Design Gurus: Grokking the Object Oriented Design Interview	*Online*
2025	**Technical Instructor**, Git & GitHub Workshops – IEEE ENSAF Student Branch	*Fès*
2025	**2nd Place Individual**, GTR & GSCSI Alumni Day Capture The Flag (CTF)	*Fès*
2026	**Challenge Author**, Created 10+ custom Web/Pwn challenges for CyberSec PAF CTF	*PAF-IAST Pakistan*