Rafael Roma

Software Engineer (Apprenticeship) | Seeking Summer 2027 SWE Internship (Jun - Aug)

Rodez / Clermont-Ferrand, France (Open to Relocation) | pro.rafael.roma@gmail.com | +33 7 88 25 66 05 | linkedin.com/in/rafael-roma

WORK EXPERIENCE

SBS Software — Rodez, France

Software Engineer (Apprenticeship) — Sep 2024 - Present

Collection *(Debt Collection & Recovery Solution)*

- Engineered a custom multi-threaded partitioning mechanism extending Spring Batch with thread-safe file I/O, reducing execution time by 20% on benchmarks of 1M contracts and 200k customer records.
- Consolidated 500 legacy auto generated batch modules into 3 generic, parameterized processing pipelines, eliminating widespread code duplication and simplifying maintenance.
- Introduced OAuth 2.0 support with JWT bearer token validation and role propagation, enabling secure SSO integration with the central banking portal.
- Containerized local development and integration testing environments using Docker Compose (PostgreSQL 17, JBoss EAP), standardizing the testing harness.

Default Management *(Payment Default Detection)*

- Migrated Default Management from Java EE to Jakarta EE with zero regressions, automating enterprise specific format packaging with Maven and orchestrating CI/CD pipelines via GitLab CI.

Robert Bosch (ProMES Manufacturing System) — Rodez, France

Software Engineer Intern — Apr 2024 - Jun 2024

- Developed a full-stack real time manufacturing dashboard (Node.js, React, Chart.js, PostgreSQL) tracking production throughput and live metrics, piloted and tested across factory production lines.
- Built an incident tracking and operator shift handover system, enabling line leads to log stoppages, analyze cycle times, and diagnose production bottlenecks.
- Implemented JWT based authentication and role-based access control middleware to secure multi role terminal access across factory floor workstations.

EDUCATION

Master of Engineering in Computer Science (Diplôme d'Ingénieur) — Sep 2025 - Sep 2028 (Expected)

ISIMA - Clermont Auvergne INP — Clermont-Ferrand, France

- Relevant Coursework: Software Architecture, Operating Systems & Concurrency, Algorithms, Network Protocols.
- Certification: CyberEdu Certified (ANSSI-aligned cybersecurity training).

Bachelor of Technology in Computer Science (Bachelor Universitaire de Technologie) — Sep 2022 - Jun 2025

IUT de Rodez - University of Toulouse Capitole — Rodez, France

- Track: Software Engineering & Application Development.

PROJECTS

Bot Detection Analysis & Security Protocol Research | *Security & Concurrency Research* | *Go* — 2023

- Reverse engineered client side JavaScript challenge protocols in an isolated test harness to analyze browser fingerprinting and defense mechanisms.
- Engineered a concurrent benchmarking engine in Go using goroutines to evaluate protocol throughput and verification latency.

TECHNICAL SKILLS

Languages (Proficient):	Java, Go (Golang), Python, SQL
Languages (Familiar):	C/C++, JavaScript, Bash
Frontend & Web:	React, Node.js
Backend & Architecture:	Spring Boot, Spring Batch, Jakarta EE, JBoss EAP, REST APIs, Microservices
Databases & DevOps:	PostgreSQL, Oracle, DB2, Docker, Linux, Git, GitLab CI, GitHub Actions, Maven
Security & Identity:	OAuth 2.0, Role-Based Access Control, SSO Integration

ADDITIONAL INFORMATION

Spoken Languages:	French (Native), English (Full Professional Proficiency), Spanish (B1)
Certifications & Interests:	Aeronautical Initiation Certificate (BIA - Flight Physics & Meteorology)
International Background:	Lived and schooled abroad in Greece (5 years) and Chile (2 years)