

Yassine BEIDOURI

Software Engineering Student · Backend & Distributed Systems (Java, Spring Boot, Kafka)

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PROFILE

Computer Science Engineering student at Polytech Grenoble INP-UGA (2nd year of the engineering cycle) with hands-on backend experience from an internship at Wafa Assurance, where I built real-time data synchronization between PostgreSQL databases using Apache Kafka, Debezium (CDC) and Spring Boot. Strong in Java and Python, with a solid grounding in algorithms, concurrent programming and compiler construction. **Looking for a 4–5 month backend / software engineering internship from 13 April to end of August 2027, open to relocating anywhere in Europe.**

EXPERIENCE

Software Engineering Intern - Wafa Assurance

Jul 2026 (1 month)

Insurance company - Casablanca, Morocco

- Built a **real-time Change Data Capture pipeline** synchronizing client data from a source PostgreSQL database to CRM and accounting databases with different schemas: Debezium reads the PostgreSQL WAL, Kafka (KRaft) transports the events, and JDBC sink connectors upsert them, with no synchronization code in the application.
- Propagated **INSERT, UPDATE and DELETE** end to end (Kafka tombstones, key-based upserts), adapted schemas with Single Message Transforms (field renaming, topic routing), and replicated 9 related tables including a many-to-many join table.
- Developed an **event-driven Spring Boot service** (Java 21): REST producer publishing client events to Kafka, consumed by 4 isolated consumer groups (contracts, payment, accounting, CRM), each with its own datasource; input validation, retries and a dead-letter topic for failed events.
- Containerized the full stack with Docker Compose (Kafka, Kafka Connect, Kafka UI, 3 PostgreSQL databases), wrote an automated end-to-end sync test script and a GitHub Actions CI pipeline (Maven build + tests).

Java 21, Spring Boot, Spring Kafka, Apache Kafka, Kafka Connect, Debezium, PostgreSQL, JPA, Docker Compose, GitHub Actions

SKILLS

Languages Java (Advanced), Python (Advanced), C (Intermediate), Kotlin, JavaScript, TypeScript, SQL

Backend & Data Spring Boot, Spring Data JPA, REST APIs, Apache Kafka, Kafka Connect, Debezium (CDC), Flask, Node.js

Databases PostgreSQL, Oracle, H2

Frontend React, Next.js, Tailwind CSS, HTML/CSS

Tools & DevOps Git, GitHub Actions (CI), GitLab, Docker, Docker Compose, Maven, Linux

CS Theory Algorithms & Complexity, Data Structures, Graph Theory, Formal Grammars & Compilers, Concurrent Programming

Methodology Agile / Scrum, team projects (up to 6 people)

Spoken Languages French (native), Arabic (native), English (professional)

PROJECTS

Pengo - Retro Game Engine (Team of 6)

2025 – 2026

From-scratch Java game engine (no frameworks) on a custom MVCB architecture, running both a Pengo clone and Pac-Man from one generic core. Enemy behaviour is scripted in GAL, a custom DSL compiled by a JavaCC parser into finite state machines. Owned the View package: frame loop, entity rendering, HUD/menu overlays, and the render-hook system. [Demo](#) - [Java](#), [JavaCC](#), [DSL](#), [Software Architecture](#), [Team Project](#)

Reinforcement Learning Training Agent

2025 – 2026

Built a reinforcement learning environment simulating an autonomous patrol drone, applying RL concepts to autonomous navigation scenarios. [GitHub](#) - [Python](#), [Reinforcement Learning](#), [AI](#)

CALC - Expression Parser & Evaluator

2025 – 2026

Calculator language built with JavaCC: expression grammar with variables and operator precedence, parse-tree visualisation and evaluation. - [Java](#), [JavaCC](#), [Compiler Design](#), [Formal Grammars](#)

EDUCATION

Engineering Degree in Computer Science - Polytech Grenoble INP-UGA

2025 – 2028

2nd year of the engineering cycle - Grenoble, France

- Languages & Translators, Functional Programming & Algorithmics, Algorithmic Complexity, Probability & Simulation
- Concurrent Programming, Network Technologies, Databases, Human-Computer Interaction, OOP (Java)

Bachelor's Degree in Computer Science (L1–L2) - Aix-Marseille University

2023 – 2025

- Programming (C, Python), Web Development, Databases (SQL, Oracle), Discrete Mathematics, Data Structures