

Bouroumana Moundher

Python Backend Engineer — Distributed Systems

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Experience

Backend Engineer — Velo

March 2026 – Present

Backend Engineer

- Refactored legacy backend services to improve code quality, maintainability, and system performance.
- Implemented new backend features and APIs based on evolving business requirements.
- Designed and maintained CI/CD pipelines, automating testing and deployment workflows.
- Improved production uptime by migrating and optimizing services on Kubernetes while resolving long-standing infrastructure issues.
- Implemented a centralized monitoring and logging stack using the Prometheus Operator on Kubernetes, improving observability and incident response.
- Resolved data consistency issues across distributed services by improving transaction handling and synchronization mechanisms.
- Migrated stateful application components to stateless architectures, increasing scalability, resilience, and deployment flexibility.

Backend Engineer — Abber

March 2025 – February 2026

Microservices & Platform Engineer

Remote

- Architected and operated a 13-service microservices platform serving over 3K users while improving reliability through circuit breakers, retries, and timeout strategies.
- Designed service contracts, database schemas, and gRPC APIs implementing the SAGA pattern for distributed transactions.
- Built secure payment workflows with idempotency, retry mechanisms, and failure recovery.
- Introduced event-driven communication to reduce service coupling and improve scalability.
- Built CI/CD pipelines and optimized Docker images from 2 GB to 500 MB, reducing deployment time and infrastructure costs.
- Deployed and managed production workloads on AWS (EC2, RDS, S3) and VPS environments using Docker Compose.

Freelance System & Backend Engineer

2024 – 2025

Stockkedy — RFID Stock Management System

Remote

- Built an RFID inventory platform tracking more than 10K products across multiple warehouses.
- Designed a high-throughput FastAPI and Redis ingestion pipeline processing over 150 events per second.
- Implemented immutable audit logging using immudb.
- Streamed events through Kafka to support scalable event-driven processing.
- Integrated MQTT, reducing reader-to-server latency by 40%.
- Introduced Redis caching, reducing API response time from 300 ms to 150 ms.

Skills

Languages: Python, Go (Golang)

Backend: Django, Django REST Framework, FastAPI, REST, gRPC

Databases: PostgreSQL, Redis, SQLite, immudb

Messaging & Async: RabbitMQ, Kafka, Celery, MQTT

DevOps & Cloud: Docker, Docker Compose, Kubernetes, AWS (EC2, RDS, S3), DigitalOcean, Linux, Nginx

Monitoring: Prometheus, Prometheus Operator

Security: JWT, OAuth2, HTTPS, RBAC, Rate Limiting, Unit Testing, Integration Testing

Education

Higher School of Computer Science SBA

2023 – Present

Master in Computer Science

Sidi Bel Abbès, Algeria

Projects

zp — eBPF-based Port Monitoring CLI

Go, eBPF, Linux

- Built a lightweight CLI using eBPF to monitor processes, sockets, and open ports directly from kernel space.
- Implemented kernel-to-user communication for real-time observability.
- Optimized for high-frequency events with minimal runtime overhead.

django-schema-history

Django, Python, PyPI

- Created an open-source Django package for managing database schema evolution.
- Implemented versioning, automated testing, and CI/CD before publishing on PyPI.
- Achieved over 1,000 downloads from the Python community.

Career Bridge Platform

Django, Redis, RabbitMQ, Celery, PostgreSQL

- Developed production-ready REST APIs connecting students with internship opportunities.
- Implemented real-time chat and notifications using WebSockets.
- Leveraged RabbitMQ, Redis, and Celery for asynchronous processing and scheduled jobs.
- Delivered production features using Agile development methodologies.