

FADI CHEIKH

Senior Software Engineer | Python · Data · AI
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PROFILE

Senior software engineer with 8+ years of experience in fullstack development, data engineering and applied AI, delivered across cybersecurity, retail analytics, financial services, energy and telecommunications. Currently building Python microservices and offline AI capabilities for IBM's endpoint detection and response product. Owns solutions end to end, from stakeholder requirements to containerized deployment.

PROFESSIONAL EXPERIENCE

IBM — QRadar EDR03/2024 – Present

Endpoint Detection and Response (EDR) product with MITRE ATT&CK-mapped detection rules, deployed on OpenShift in cloud and air-gapped environments.

- Integrated a quantized LLM (IBM Granite) into the product, bringing AI-assisted code explanation to air-gapped customer environments on CPU-only infrastructure.
- Built an interactive model evaluation platform where engineers load models, tune inference parameters (temperature, top-k, top-p, context window) and compare outputs in real time to support model selection for the offline feature.
- Designed and delivered a validation service for Lua detection rules in three iterations: a FastAPI proof of concept orchestrating Luacheck and lua-format, integration and containerization within an existing service, and a production microservice with asynchronous subprocess handling, fail-fast error handling, type hints and full unit test suites; now used by detection engineers to catch rule errors before release.
- Built a smoke-testing service providing a sandboxed Lua runtime, fully API-compatible with the endpoint agent, allowing detection engineers to validate policies before production deployment.
- Contributed to an API gateway that centralizes routing and management of requests across the team's internal microservice platform.
- Maintain and extend the platform's microservices: harden container images to security standards, run performance profiling and stress tests, and manage Jenkins CI/CD pipelines.
- Contribute to the endpoint agent (detection capabilities, telemetry collection) and to React front-ends for internal tooling; delivered features are in production, adopted by detection engineering teams, with positive user feedback.

Technologies: Python, FastAPI, Lua, Docker, OpenShift, Jenkins, OpenSearch, React, Redis, kafka

NetCapital06/2021 – 02/2024

Lead generation for banks, credit card providers and other financial institutions across multiple European countries.

- Gathered requirements directly from stakeholders for the rebuild of the company's internal CMS, translated them into technical specifications and distributed tasks across the team.
- Architected the Next.js front-end with a modular, scalable structure supporting multiple site designs, including Webflow-based designs integrated via DevLink.
- Defined and executed the data migration from DynamoDB to MongoDB with preserved integrity, and documented the strategy for future reference and audit.
- Introduced a caching layer to reduce page load times, and integrated Google Tag Manager so tracking tags could be managed without code changes.
- Set up the development pipeline with GitLab CI and Docker for consistent deployments across environments; investigated and resolved production anomalies.

Technologies: React, Next.js, Redux, Node.js, MongoDB, Python, AWS, GitLab CI, Docker

RUN-IT

07/2020 – 05/2021

Software consultancy.

- Built a B2B e-commerce platform for a wholesale distributor, with a Django REST Framework back-end and React/Redux front-end covering catalogue, stock, ordering and back-office order and complaint management; deployed on Heroku.
- Developed a Python desktop application (Pandas, Tabula, PyInstaller) for an accounting firm that extracts, cleans and reconciles client transaction data and exports it into the firm's accounting software (Meteor Compta).
- Worked directly with accountants to gather requirements; delivered a solution first for the firm's main client, then generalised it to support additional clients.

Technologies: Python, Django, Django REST Framework, React, Redux, Pandas, Tabula, PyInstaller, Heroku

Devoteam12/2019 – 06/2020

Big data proof of concept for automated matching of candidate CVs to consulting missions.

- Set up a Hadoop cluster with YARN resource management, deployed Spark on it and validated batch and streaming job submission.
- Configured Apache Livy and validated remote submission of batch and interactive jobs.
- Wrote PySpark data-processing jobs, confirming the architecture's feasibility for the automated matching system.

Technologies: Hadoop, YARN, Spark, PySpark, Apache Livy, Scala, Python

Datagram

02/2019 – 12/2019

Retail market intelligence platform serving clients such as Michelin and Carrefour.

- Developed and maintained site-specific web scrapers (Scrapy, Selenium with headless Chrome, BeautifulSoup) running on a distributed worker architecture, including handling of rate limiting and anti-bot measures.
- Routed collected data to Cassandra via RabbitMQ and loaded historical data into PostgreSQL, with integrity and data-type checks.
- Built and scheduled batch workflows with Apache Airflow, and automated scraper operations with shell scripts.
- Maintained and extended the Kubernetes-based microservices back-end serving the platform's dashboards.

Technologies: Python, Scrapy, Selenium, Apache Airflow, RabbitMQ, Cassandra, PostgreSQL, Kubernetes, AWS

COR-E

02/2018 – 12/2018

Decision support for the wholesale electricity market: price forecasting and explanation of key drivers.

- Built a Flask REST API (MVC, SQLAlchemy, Swagger) exposing production data to the dashboard, with Redis caching of the latest predictions to reduce database load.
- Automated model training and prediction pipelines triggered by weather-data availability, using shell scripts, cron and Pentaho Data Integration.
- Introduced multiprocessing and multithreading into model and prediction scripts in collaboration with the machine learning team.
- Designed the target database and maintained the SQL views feeding the forecasting dashboard.

Technologies: Python, Flask, SQLAlchemy, Redis, PostgreSQL, MySQL, Pentaho DI

TOPNET

01/2015 – 12/2017

Major Tunisian internet service provider.

- Built automated KPI reporting solutions for the technical customer support and marketing departments, tracking service quality and supporting data-driven decisions; documented both solutions.

Technologies: Python, MySQL, Power BI

EDUCATION

Engineering Degree in Computer Science (BI & Data Science)

2018

ESPRIT School of Engineering (EUR-ACE & CDIO accredited)

Bachelor's Degree in Network Administration and Services

2013
Institut Supérieur de l'Informatique

CERTIFICATIONS

IBM Build Smarter AI with Embeddings — IBM

2026

IBM Developer Profession — IBM

2026

IBM Big Data Developer Mastery Award — IBM

2017

TECHNICAL SKILLS

Languages: Python, JavaScript, Lua, SQL, Shell, Scala

Backend & Web: FastAPI, Flask, Django, Django REST Framework, Node.js, React, Next.js, Redux

Data: Pandas, Spark / PySpark, Hadoop, Apache Airflow, Apache Livy, Pentaho DI, Scrapy, Selenium, Power BI, PostgreSQL, MySQL, MongoDB, Redis, OpenSearch, Cassandra, DynamoDB, RabbitMQ

AI / LLM: LLM integration, GGUF model quantization, llama-cpp-python, inference parameter tuning, air-gapped deployment

Infrastructure & DevOps: Docker, Kubernetes, OpenShift, AWS, Heroku, Jenkins, GitLab CI, Git