

MOHAMED ALI TRABELSI

AI Software Engineer

All my links: mohamedalitrabelsi.tn/lintree

trabelsimuhamedali@gmail.com | (216) 21 395 619 | Bizerte, Tunisia

PROFESSIONAL SUMMARY

AI Software engineer with a business degree, so I'm as comfortable in a product meeting as I am in the codebase. I started building with LLMs in early 2023 before tooling caught up, so I wrote the hard parts myself: RAG with my own chunking and retrieval, multi-agent systems with cost tracking, retries, sandboxes, text-to-SQL, text-to-py. Small teams taught me to make decisions without a perfect brief and to put working versions in front of users early. I've coached interns until they could run on their own, and I integrate easily within cross-cultural teams.

WORK EXPERIENCE

Python AI Engineer

May 2026 – Present

Yassir Global

Leading the design and rollout of new AI projects for onboarding drivers and restaurants onto the Super App. Working with a global team on AI automation workflows to organize internal chaos and eliminate repetitive manual tasks for operations and sales teams. Acting as the bridge between technical and business teams, translating needs from marketing, ops, and sales across different cultures into specs and then into products.

Tech Stack: Python, GCP, BigQuery, google-genai, OpenAPI, React, Playwright, Docker

Software Engineer

Feb 2025 – Apr 2026

Netisse Services

I migrated a 10 year old Perl geospatial pipeline to a deterministic geometry engine (linear algebra, computational geometry and regex processing), with 100% conversion parity across 500+ architectural floor plans consumed by a 3D map engine. I designed a hybrid Kiosk android app to replace a legacy one, supporting a fleet of PoE wall tablets from API 23 to 31, with custom native Java plugins and remote access over ADB and SSH.

Tech Stack: Node.js, Javascript, Typescript, Angular, Ionic, Cordova, AngularJS, Perl, MySQL, Java (Android SDK), Socket.IO, adbkit, SSH tunneling, Three.js, Canvas API, XML/XPath, Regex

AI Software Engineer

Oct 2023 – Jan 2025

EmyeHR

I worked on an HR SaaS product in two stages: first its core modules, then its AI ecosystem. In the first stage I built several modules from scratch, full-stack, owning the whole SDLC: Job Postings (with ESCO), Leave Management, Annual Meetings and Office Space Management. Once those were solid, I added the AI layer: a recruitment chatbot with dynamic real-time CV analysis and candidate screening, and a multi-agent system connected to Slack, MS Teams and the main app. It combines a text-to-SQL agent with a sandboxed text-to-Python agent that processes company data securely and generates interactive HR charts on demand. The tooling for this was still immature, so I wrote the agent plumbing myself: cost tracking, tool-call handling, timeouts, retries and self-recovery, plus a custom RAG with its own chunking and retrieval strategies. I also coached two interns on LLM fine-tuning and RAG optimization, working with them on specs, architecture and decisions through weekly check-ins and code reviews until they could work on their own.

Tech Stack: Python, Node.js, Angular, Javascript, Typescript, PostgreSQL, n8n, Azure, LLMs, RAG, Agents, Docker

AI Software Engineer (Freelance)

Dec 2024 – May 2025

Navero

I was the first developer for the AI-native hiring platform, working with the tech lead on the architecture and building the MVP. From day one I set up the foundation: a model-agnostic LLM broker across multiple provider SDKs, traceability and cost management for LLM usage, reusable components, and a vertical slice design. I built the base of the candidate screening flow designed to be modular and configurable. Created workflows for AI-assisted e2e feature tests creation using Playwright to simulate how a real user would use the app.

Tech Stack: TypeScript, Next.js, React, Redux, Python, FastAPI, Pydantic, PostgreSQL, Prisma, Supabase, RabbitMQ, Redis, Docker, GCP (Cloud Run, Storage), terraform, github actions, multi-provider LLMs

AI Engineer (Freelance)

July 2024 – Dec 2024

Sagy.ai

Collaborated on a multi-tenant AI-native knowledge base platform across multiple data sources. Worked on multi-model AI orchestration and LLM routing, built high accuracy RAG based on ChromaDB. Integrated with external connectors (Slack, Notion, Teams). Managed full-lifecycle Docker environments.

Tech Stack: Python, Django (DRF), JavaScript, TypeScript, Next.js, React, Docker, Nginx, Gunicorn, Redis, PostgreSQL, ChromaDB, LLMs, Azure (VMs, AI models, Blob Storage), External Integration (Slack, Notion, Teams)

AI Engineer (Freelance)

Jan 2024 – June 2025

Qinsights

Led RAG performance improvements through optimized retrieval, chunking, and citation-grounded workflows, and integrated multi-model AI pipelines for chat, theme extraction, sentiment analysis. Owned end-to-end Docker infrastructure (dev/test/prod) with containerized services, automated migrations.

Tech Stack: Python, Django, PostgreSQL, pgvector, RAG, Vector Search, LLM, Azure (VMs, AI models, Blob Storage), Redis, WebSockets, Docker, Docker Compose, CI/CD, Uvicorn, Jira, SCRUM, Agile

Software Engineer (End-of-Studies Intern)

Jan 2023 – Jun 2023

EmyeHR

Designed and implemented FlexiSpace, an office management platform featuring a drag-and-drop layout designer and AI-driven scheduling optimization powered by OptaPlanner. Developed a suite of integrated solutions for parking and carpooling, using n8n for workflow automation and Socket.io for real-time updates

Tech Stack: Angular, Typescript, Nodejs, PostgreSQL, n8n, Java, Quarkus, OptaPlanner, Socket.io, Python, LLMs, RAG, Custom Elements, Shadow DOM, SaaS, Docker, Linux, Git, Jira, Agile, SCRUM

Fullstack Javascript Developer (intern)

May 2021 – Sept 2021

Westic Logistics

Worked on a logistics platform across React (web), React Native (mobile), and Node.js (backend). Built and integrated shipment/location features with OpenStreetMap using Leaflet / React-Leaflet

Tech Stack: React, React Native, Expo, Node.js, Express.js, MongoDB, Mongoose, REST APIs, SCRUM

Backend Node.js Developer (intern)

Jun 2020 – Sep 2020

LoDeep

Developed the backend of a recommendation system for suggesting study buddies, course materials, and club activities using a system based on hybrid user-based and item-based collaborative filtering.

Tech Stack: NodeJs, Express, Python, Flask, MongoDB, Git, GitHub, Data Warehousing, ETL process

EDUCATION

Bachelor of Science in Business Administration (BSBA)

Tunis Business School • Major in IT, Minor in Business Analytics

LANGUAGES

English: Professional

French: Professional

Arabic: Native

CONTACT

Phone: (216) 21395619

LinkedIn: [linkedin.com/in/mohamed-ali-trabelsi](https://www.linkedin.com/in/mohamed-ali-trabelsi)

Email: trabelsimuhamedali@gmail.com

Portfolio: mohamedalitabelsi.tn