

Hasham Abdullah

Full-Stack Software & AI Developer

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Availability: Immediate
Work Authorization: Authorized to work in Belgium (no visa required)

SUMMARY

Full-Stack Software & AI Developer (graduated with distinction) with hands-on experience in stakeholder alignment and client requirements. I build secure **Java (Spring Boot)** and **Python (FastAPI)** microservices, responsive **React/Next.js** web applications, and **GenAI** solutions (**RAG pipelines**, **agentic workflows**, and **neural retrieval**). I focus on clean code, automated containerized workflows, and building durable, practical software that delivers real value to users and businesses.

WORK EXPERIENCE

Nalantis NV (HR & Talent Automation) | Antwerp, Belgium

AI & Backend Software Engineer Intern **March 2026 - June 2026**

- Trained and benchmarked **Bi-Encoder** and **Cross-Encoder** models, deploying a multi-stage **Python/FastAPI** neural retrieval and re-ranking pipeline to match large applicant pools to job postings.
- Built an agentic **LLM-as-Judge** final stage and **React** UI on top of the re-ranker, aligning with stakeholders to deliver detailed section-by-section score summaries for top-ranked candidates.
- Optimized the neural ranking engine and API payload exchange to sustain **sub-500ms** production latency under high-volume evaluations, containerizing and deploying services to the cloud via **Docker**.

Studio Vinnie (External Client Graduation Project) | Smart Meal Planner AI

Full-Stack & AI Software Engineer **January 2026 - March 2026**

- Led an **agile team** of three, aligning weekly with the client to architect and ship a full-stack SaaS platform with **Next.js**, **React**, **TypeScript**, **PostgreSQL (Neon)**, **Drizzle ORM**, and **NextAuth.js**.
- Engineered a **RAG** "Kitchen Helper" assistant (**OpenAI**, **Groq**) for cooking Q&A and personalized weekly meal plans (allergies, diets, household profiles) with one-click meal/ingredient swaps.
- Built **SSE** streaming for non-blocking AI UI updates, 15/30-minute recipe-shortening flows, automated meal history and shopping lists, and cloud CI/CD deployments via **GitHub Actions**.

EDUCATION

Bachelor's in Applied Computer Science | Karel de Grote Hogeschool (KdG) | Antwerp, Belgium **2023 - 2026**

Graduated with Distinction, specializing in Applied Artificial Intelligence.

SKILLS

- **AI & Automation:** Generative AI & LLMs, RAG Pipelines, Agentic Workflows, MCP (FastMCP), Bi-Encoders & Cross-Encoders, Sentence-Transformers, Machine Learning.
- **Backend & Systems:** Java (Spring Boot, JPA), Python (FastAPI, Pydantic), Microservices, REST APIs, PostgreSQL, Drizzle ORM, MongoDB, Vector Databases (ChromaDB).
- **Web & Frontend:** React, JavaScript, TypeScript, Next.js, HTML, CSS, NextAuth.js, Server-Sent Events (SSE).
- **DevOps & Tools:** Azure, Docker, Linux, CI/CD Pipelines (GitHub Actions), Git, Maven/Gradle, Jira, Agile/Scrum, OAuth2/OIDC, Keycloak.

- **Soft Skills & Mindset:** Critical Thinking, Code Ownership, Business-Oriented Collaboration, Automation-First Mindset, Adaptability, Cross-Functional Teamwork.

PROJECTS

The Council of Achrona | Hack The Future 2026 (6th / 22 Teams) (GitHub) 2026

- Built a multi-agent system with **Python**, **Microsoft Agent Framework**, and **Pydantic**, separating a Zero-Tool King orchestrator from advisor agents with per-role **FastMCP** isolation.
- Implemented a deterministic Python citation gate enforcing **0 hallucinated IDs** across agent outputs, paired with an interactive Arcade CRT web UI.

AI Gaming Suite | Distributed Team Project (GitHub) 2025

- Collaborated on a **Java** and **Spring Modulith** gaming platform (**PostgreSQL**, **React**), building the core game module, integration tests, and **Python** AI opponents (**MCTS** and **ML** models).
- Engineered a **RAG** chat assistant using **FastAPI**, **ChromaDB**, and **OpenAI** for real-time gameplay guidance, deploying in a **Docker Compose** stack secured by **Keycloak** (OAuth2 + PKCE).

LANGUAGES

- English
- French
- Dutch (Limited Working Proficiency)

INTERESTS

Technology & Open Source | **Gaming & Football** | **Cooking & Documentaries**

References from academic faculty and internship management available upon request.