

Abdelrahman Abdelaal

MSc Computer Science student at TUHH

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Software engineer with ten months on a production Java platform at Tata Consultancy Services and a summer building LangGraph agents at 7Bots. I build projects end to end, from database schema to user interface.

EDUCATION

10/2026 – present	MSc Computer Science , Hamburg University of Technology (TUHH) Coursework: Software Verification, Software Security, Intelligent Autonomous Agents, Optimization	Hamburg
09/2023 – 07/2026	BSc Computer Science , Eötvös Loránd University (ELTE) GPA 4.62 / 5.0 · Thesis: VERZE, a SaaS platform for UEFN creators, graded 5 / 5 Coursework: Algorithms and Data Structures, Databases, Artificial Intelligence, Software Technology	Budapest

EXPERIENCE

07/2026 – 08/2026	Agentic AI Engineer Intern , 7Bots - Built a 5-stage multi-agent deep research system in LangGraph with MCP tools and supervisor delegation. - Built an ambient email assistant: LLM triage, human-in-the-loop approval, long-term memory, live Gmail API. - Traced every agent in LangSmith and built LLM-as-judge evaluation datasets to catch and fix failure modes.	Budapest
10/2025 – 07/2026	IT Trainee , Tata Consultancy Services - Maintained Java 8 / Spring 5 services (Hibernate, JAX-RS, ActiveMQ JMS, MySQL) on a 31-schema travel-insurance platform sold inside Airbnb, Expedia, VRBO and Flight Centre checkouts. - Built an AI incident assistant for production support; a human confirms every production write it proposes. - Automated Jira security-ticket triage in Python: query findings by JQL, clone the repo from Bitbucket, analyse it through the GitHub Copilot CLI, post the report back to the ticket. - Remediated Checkmarx, CAST and Qualys findings in ~44 Maven projects to pass the OWASP CVSS ≥ 7 gate.	Budapest
06/2025 – 08/2025	Backend Developer Intern , Tata Consultancy Services - Built the backend of a parcel-delivery app in a 13-person team (Spring Boot 3, Java 21, PostgreSQL, Redis) and agreed the REST contract with the React developers via OpenAPI. - Implemented dual auth (JWT RS256 + API keys) on Spring Security and event-driven email notifications.	Budapest · GitHub
12/2023 – 06/2025	Software Developer , Freelance Created Verse Auto Imports (2,400+ installs), the most-downloaded third-party VS Code extension for Epic's Verse language; delivered 5+ UEFN game experiences with AI behavior trees.	Budapest

PROJECTS

2026	VERZE · SaaS platform for UEFN creators - BSc thesis, graded 5/5: Spring Boot (Java 25), React 19/TypeScript, PostgreSQL, Firebase Auth, Stripe. - Unifies island analytics from three creator APIs (Epic Games, Osirion, Fortnite Data) in one dashboard.	verze.gg
2025	Froebel · AI-powered quiz platform - Grades 8 question types with partial credit; any of 4 LLM backends plugs in behind one interface. - Made it safe to expose a paid LLM: OAuth2, TOTP 2FA and Redis + Bucket4j rate limiting in front of grading.	GitHub

SKILLS

Programming	Java, Python, TypeScript, JavaScript, SQL, C#, Verse
Backend	Spring Boot, Spring Security, Hibernate, JAX-RS, ActiveMQ (JMS), REST, OpenAPI/Swagger
Data	PostgreSQL, MySQL, MongoDB, Redis, Flyway
AI	LangGraph, LangSmith, MCP, LLM evaluation (LLM-as-judge), human-in-the-loop workflows
Frontend	React, Next.js, HTML/CSS
Tools	Git, Docker, Maven, Jira, Bitbucket
Certifications	Claude Certified Architect – Professional · Architect – Foundations · Developer – Foundations · Associate – Foundations (Anthropic) · GitHub Agentic AI Developer · GitHub Copilot GH-300 (Microsoft)
Languages	Arabic (native) · English (C1, IELTS 7.5) · German (beginner) · Hungarian (beginner)