

MAJD ALKAYYAL

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SKILLS

Backend Engineering | C# • C++ • Python • REST APIs • ASP.NET Core
LLM Agents | Prompt Eng • RAG • MCP • Hugging Face • LangChain
Frontend & Mobile | React • Next.js • Angular • Flutter • React Native • TypeScript
Cloud & DevOps | AWS • Azure • Firebase • Docker
Data Engineering | SQL • NoSQL • Data Pipelines • ETL

EXPERIENCE

KPMG | Software Engineer (Assistant Manager) | Part-time

ASP.NET Core, Azure, PostgreSQL, Angular
Munich, Germany – July 2024 – Present

- Leading small cross-functional teams within a large international setup, contributing to major features like **document translation** and **fiscal year data migration** across a distributed codebase spanning four countries.
- Building **PoCs** in close collaboration with business units, turning their needs into actionable prototypes and technical solutions.
- Ensuring **code quality** through **PR reviews**, **integration testing**, bug fixing, and clear documentation to maintain consistency and scalability

PwC | Software Engineer (Associate) | Part-time

ASP.NET Core, Azure, SQL Server, Angular
Munich, Germany – April 2023 – June 2024

- Supported multiple internal projects with a focus on **backend development**, **testing**, and building **proof-of-concept** applications.
- Contributed to the development of an **Authentication-as-a-Service** solution enabling **single sign-on** across PwC's internal applications.
- Worked with technologies including **ASP.NET Core**, **Azure**, **SQL Server**, and **Angular** in a fast-paced, enterprise environment.

Technical University of Munich (TUM) | Teaching Assistant | Part time

C++, SQL, Distributed Systems
Munich, Germany – October 2023 – April 2024

- Conducted exercise sessions for master students using **C++** and **SQL** in Foundations in Data Engineering course.

Maaly (TelyPay) | Senior Software Engineer & Project Manager → Technical Consultant | Full-time → Part-time

ASP.NET Core, AWS, SQL Server, React, Flutter, NLP, LLM, RAG
Muscat, Oman – February 2022 – November 2024

- Built and led the tech team from the ground up, overseeing hiring, project planning, and system architecture across multiple fintech products.
- Designed and developed key applications including **Maaly**, a personal finance tracker with **Classical NLP-based SMS parsing** and the first **Open Banking integration in Oman**, as well as an invoicing/payment system and customer behavior dashboards.
- Deployed and managed the company's entire **AWS cloud infrastructure** using **IaaS**, and built a **data-driven chatbot** to enable natural language access to financial insights.

GUtech | Research & Teaching Assistant | Part time

C++, Data Structure, Operating System, Flutter, SQL, ASP.NET Core
Muscat, Oman – September 2021 – June 2022

- Conducted coding and exercise sessions for CS students in **C++**, **Data Structures**, **Operating Systems**, and

EDUCATION

Technical University of Munich (TUM)

— *M.Sc. Data Engineering and Analytics*
Graduation: Apr 2025 | cGPA: 1.3 / 1.0

German University of Technology in Oman (GUtech) — *B.Sc. Computer Science*

Graduation: Sep 2021 | cGPA: 4.0 / 4.0

HONORS & AWARDS

Oman Education Services (OES) Scholarship – Full bachelor's scholarship for top high school graduates (2017–2021)

DAAD Bachelor Thesis Scholarship – Thesis at RWTH Aachen, Germany (2021)

DAAD Master Scholarship – Awarded for academic excellence from RWTH Aachen (2022–2023)

Academic Rector's Medal – Top student across all majors at GUtech (2021)

INTERESTS

Travel • Hiking • Personal growth • Anime/Manga

LANGUAGES

English • German • Arabic

SQL.

- Developed a **task management app** to support a VR research project and built a **voice-controlled object detection interface** for assistive smart glasses.
- Contributed to research through full-stack prototyping using **Flutter** and **ASP.NET Core** for real-world impact in accessibility and immersive tech.

Webware | Full-Stack Developer | Part-time

Flutter, ASP.NET Core, SQL Server

Muscat, Oman – February 2020 – April 2021

- Built and deployed a cross-platform charity app for **Dar Al Atta** using **Flutter**, **ASP.NET Core**, and **SQL Server**.
- Integrated payment gateways, authentication, SMS, and email services to support donations and case management.
- Designed and delivered the entire system end-to-end while self-learning full-stack development; published on App Store and Google Play.

PROJECTS

StrategicAI: An LLM-based Decision Support System for Strategic Decision Making in Business | Master Thesis | TUM

Multi-Agent LLM System, RAG, FastAPI, NextJS, MongoDB, Docker

Munich, Germany – October 2024 – April 2025

- Developed **StrategicAI**, an LLM-powered DSS for structured strategic decision-making using a modular architecture with Root Cause Analysis, Solution Exploration, and Solution Validation.
- Engineered a **multi-agent system** integrated with RAG, FastAPI, and MongoDB, enabling transparency, human-in-the-loop collaboration, and real-time explanation refinement.
- Achieved **significant improvements** in decision quality across business case studies, outperforming ChatGPT in problem identification and solution generation

CreateData4AI: Improving the Algorithmic Efficiency and Expert Collaboration of a Data Annotation Web Application | TUM

Embeddings, Math, Parallel Processing, Ray for Scaling(GPUs, Cores), FastAPI, NextJS, MongoDB, Docker

Munich, Germany – October 2023 – July 2024

- Led a team of 3 students to design the frontend and independently architected and optimized a scalable backend system for a collaborative data annotation web app.
- Implemented parallelized keyword and context window extraction pipelines using FastAPI, embeddings, and Ray to leverage multi-core and GPU acceleration.
- Improved processing efficiency and usability, cutting annotation latency while introducing expert collaboration features like task delegation and workspace management.

Open.ER: Design and Implementation of a Mobile Application to Enhance the Perception of OER | Bachelor Thesis | RWTH Aachen University

ASP.NET Core, Flutter, SQL Server

Munich, Germany – April 2021 – September 2021

- Designed and implemented a cross-platform mobile application to raise awareness of Open Educational Resources (OER) and Creative Commons (CC) licensing.
- Built the system using **Flutter**, **ASP.NET Core APIs**, and **SQL Server**, integrating features like interactive learning modules, quizzes, and OER conversion tools.
- Enabled educators and students to learn about, convert, and share licensed educational materials, fostering a collaborative and open sharing culture in academia.