Majd Alkayyal

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SUMMARY

Senior Software Engineer and Assistant Manager at KPMG with over **4 years** of experience specializing in the design and integration of **AI/LLM-powered systems**. Proven expertise in leading development teams , architecting scalable backend services , and optimizing data-intensive applications. Combines enterprise experience with a distinction-grade Master's in Data Engineering from TUM focused on multi-agent LLM systems and RAG pipelines

EXPERIENCE

KPMG Deutschland
Senior Software Engineer – Assistant Manager

Munich, Germany
July 2024 - Present

• Lead a development tribe in a 40+ engineer team to deliver complex, high-impact features, while also serving as one of the lead developers shaping the technical architecture.
• Act as a key technical liaison with business stakeholders in KPMG US, translating business needs into technical requirements and leading feature design discussions across multiple teams.
• Spearheaded backend and database optimization initiatives, significantly reducing report generation times by architecting and implementing solutions with Azure and asynchronous messaging.
• Serve periodically as Release Manager, overseeing the entire monthly release cycle to ensure smooth and timely deployments.
• Drive code quality and engineering excellence as a required reviewer for critical pull requests, mentoring junior developers and improving development practices.
• Lead the integration of AI/LLM capabilities into the core application, leveraging unique expertise to pioneer new features.
• Facilitate Agile ceremonies, including leading Scrum meetings for individual and joint tribes to ensure alignment and efficient delivery.
• Advise stakeholders on technical strategy for data migrations and the integration of external tools like PowerBI.

PwC Deutschland
Software Engineer – Associate

Munich, Germany
Apr 2023 - Jun 2024

• Developed backend modules with ASP.NET Core and SQL Server, supporting enterprise-scale internal platforms.
• Contributed to developing Authentication-as-a-Service (SSO), enabling secure, unified access across multiple PwC applications.
• Delivered multiple proof-of-concepts to validate new technologies and accelerate adoption within internal projects.
• Collaborated in a fast-paced enterprise environment using Agile/Scrum practices.

Maaly (Telypay)
Senior Software Engineer & Project Manager → Technical Consultant

Muscat, Oman
Feb 2022 - Nov 2024

• Founded and scaled the **engineering team from zero to six engineers**, leading hiring, mentoring, and process setup.
• Designed and built **Oman's first Open Banking integration** and a **personal finance app featuring NLP-based SMS parsing.**
• Architected and launched multiple fintech products: **invoicing/payment system** and **customer analytics dashboards**.
• Deployed and managed the company's **AWS cloud infrastructure (IaaS)**, ensuring scalability and cost efficiency.
• Built a **financial insights chatbot** leveraging NLP and LLMs to enable **natural language queries** on user data.

Technical University of Munich (TUM)
Teaching Assistant – Foundations in Data Engineering

Munich, Germany
Oct 2023 – Apr 2024

• Conducted weekly exercise sessions in C++ and SQL for Master's students, reinforcing core data engineering and distributed systems concepts.
• Provided mentorship and guidance to students on implementing scalable data solutions.

German University of Technology in Oman (GUtech)
Research & Teaching Assistant

Muscat, Oman
Sep 2021 – June 2022

• Delivered labs and tutorials on C++, Data Structures, Operating Systems, SQL, and ASP.NET Core.
• Developed a VR task management app to support research projects.
• Built a voice-controlled object detection system for assistive smart glasses, enhancing accessibility for visually impaired users.
• Contributed to research by building full-stack prototypes (Flutter + .NET Core), bridging academic ideas with real-world applications.

Webware
Full-Stack Developer

Muscat, Oman
Feb 2020 – Apr 2021

• Built and deployed a **cross-platform charity donation app** (Flutter + ASP.NET Core + SQL Server) for Dar Al Atta.
• Integrated **payment gateways, SMS, and email services**, enabling seamless donation flows and case management.
• Launched app successfully on **App Store & Google Play**, supporting **hundreds of active users**.
• Designed and implemented the entire system **end-to-end** while independently learning full-stack development.

EDUCATION

Technical University of Munich (TUM)
M.Sc. Data Engineering and Analytics (cGPA 1.3/1.0)

Munich, Germany

• **Graduated with distinction (Grade 1.3/1.0),** ranking in the **top 10%** of the cohort.
• **Master's Thesis (*StrategicAI*)**: Designed and implemented a **multi-agent LLM decision support system** (RAG, FastAPI, Docker, MongoDB) that demonstrated superior performance to ChatGPT in strategic problem-solving tasks; published at [ECML 2025.](#)
• Led development of **CreateData4AI**, a scalable annotation platform using embeddings + **Ray for GPU/core parallelism**, reducing annotation latency and enabling expert collaboration features.

German University of Technology in Oman (GUtech)
B.Sc. Computer Science (cGPA 4.0/4.0)

Muscat, Oman

• **Bachelor Thesis**: Designed and built a cross-platform mobile application (Flutter, ASP.NET Core, SQL Server) to raise awareness of Open Educational Resources (OER), achieving greater than 80% usability satisfaction in a prototype deployed at RWTH Aachen.
• Consistently ranked as the top student across all majors, awarded the Academic Rector's Medal for graduating first in the university.
• Awarded a DAAD Bachelor Thesis Scholarship to conduct research at RWTH Aachen, Germany (2021).

SKILLS

Languages	*C# | Python | JavaScript/TypeScript | C++ | SQL*
Frameworks	*.NET Core | FastAPI | Express | React*
Databases	*PostgreSQL | MongoDB | SQL Server*
Cloud & Infrastructure	*AWS (EC2, S3, Lambda) | Azure (App Service, Functions) | Kubernetes | Docker | Azure DevOps*
AI / NLP Engineering	*PyTorch | RAG | LangChain | Supervised Fine-Tuning (SFT) | Multi-Agent Systems*
Collaboration & Leadership	*Agile/Scrum | Project Management | Leadership | Code Reviews | Mentorship*

HONORS & AWARDS

DAAD Master Scholarship
Munich, Germany
• Awarded by the German Academic Exchange Service for academic excellence and research potential during graduate studies at RWTH Aachen.

Academic Rector's Medal
Muscat, Oman
• Awarded to the top graduating student across all majors at GUtech, Oman.

DAAD Bachelor Thesis Scholarship
Aachen, Germany
• Competitive funding from DAAD to conduct undergraduate thesis research at RWTH Aachen University, Germany.

Oman Education Services (OES) Scholarship
Muscat, Oman
• Full merit-based bachelor's scholarship, awarded to **top 1% of high school graduates in Oman**.

LANGUAGES

English | Professional   *German | Beginner*   *Arabic | Native*