Majd Alkayyal

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EXPERIENCE

KPMG
Senior Software Engineer – Assistant Manager

Munich, Germany
July 2024 - Present

• Co-leading backend development in a 40+ engineer, multi-country codebase using ASP.NET Core, Azure, and PostgreSQL.
• Partnering with business stakeholders to translate requirements into scalable technical solutions, ensuring timely delivery of critical features.
• Improving engineering standards through code reviews, test automation, and documentation, reducing defect rework by ~20%.
• Taking ownership of the design and delivery of complex, business-critical services, regularly entrusted with the most challenging technical tasks.

PwC
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
Oct 2022 - Apr 2025

• **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.
• Applied advanced **distributed systems concepts** (parallel processing, fault tolerance, scaling) in hands-on projects, bridging research with real-world engineering.

• Collaborated with professors and researchers on **AI and data-driven systems**; contributed to coursework in **Machine Learning, Cloud Computing, and Distributed Architecture**.
• Strengthened expertise in **cloud (AWS/Azure), ML frameworks (PyTorch, LangChain)**, and **data engineering workflows**, preparing for **high-scale, applied AI roles**.

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

Muscat, Oman
Sep 2016 - Sep 2021

• Bachelor Thesis (*Open.ER*): Designed and implemented a **cross-platform mobile application** (Flutter, ASP.NET Core, SQL Server) to raise awareness of Open Educational Resources (OER), integrating **interactive learning modules, quizzes, and CC license conversion tools**. Deployed prototype at **RWTH Aachen**, evaluated by students, achieving **greater than 80% usability satisfaction**.
• Developed and published a **charity mobile app** for Dar Al Atta (Flutter + .NET + SQL Server), integrating **payment gateways, SMS/email services, and secure authentication**; successfully launched on **App Store & Google Play**, supporting **hundreds of active donors**.
• Built several **full-stack prototypes** during coursework and research, including a **task management app** and a **voice-controlled object detection system** for assistive smart glasses.
• 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 research my Bachelor's thesis at **RWTH Aachen, Germany (2021)**.

SKILLS

Programming & Frameworks	*C# | Python | JS/TS | .NET Core | FastAPI | Express | React | C++*
Cloud & Infrastructure	*AWS | Azure | Kubernetes| Docker | CI/CD Pipelines*
AI / NLP Engineering	*PyTorch | RAG | LangChain | SFT (Supervised Fine-Tuning) | Multi-Agent Systems | Model Context Protocol*
Collaboration & Leadership	*Agile/Scrum | Project Management | Leadership | Code Reviews | Mentorship*

HONORS & AWARDS

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

Munich, Germany
Oct 2022 - Dec 2024

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

Muscat, Oman
Apr 2021

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

Aachen, Germany
Apr 2021 - Sep 2021

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

Muscat, Oman
Sep 2016 - Sep 2021

LANGUAGES

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