

Majd Alkayyal

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WORK EXPERIENCE

KPMG Deutschland

Senior Software Engineer – Assistant Manager

Munich, Germany
Jul. 2024 - Present

- Co-leading a global team of 40+ engineers (Germany, US, India, Poland) delivering KPMG's Transfer Pricing Reporting platform.
- Leading feature development and architectural design, driving performance optimization and database enhancements.
- Overhauling Git branching and release management processes, coordinating 6 QA environments, UAT, and production releases.
- Serving as Release Manager, triaging production issues, planning hotfixes, and aligning QA cycles with business validation.
- Conducting daily code and PR reviews, mentoring developers, and ensuring engineering-quality standards.

PwC Deutschland

Associate Software Engineer (Working Student)

Munich, Germany
Apr. 2023 – Jun. 2024

- Built and maintained PwC's internal AuthaaS platform, providing unified SSO for multiple internal applications.
- Implemented version-controlled decision-tree backends for automated workflow systems to improve auditability.
- Developed and executed integration tests to detect regressions in legacy services, reducing post-release incidents.
- Improved observability by integrating Prometheus and creating Grafana dashboards for key service metrics.
- Authored detailed API and backend documentation to streamline onboarding and handovers.

TelyPay (Maaly)

Senior Software Engineer, Project Manager & Technical Consultant

Muscat, Oman
Feb. 2022 – Nov. 2024

- Rebuilt the company's fintech ecosystem from the ground up by replacing fragmented legacy systems with a unified, scalable architecture, significantly improving stability, performance, and development velocity.
- Led a cross-functional team of 6 engineers (backend, frontend, and mobile), providing technical direction, mentoring junior developers, conducting code reviews, and establishing engineering guidelines and best practices.
- Designed and deployed new products — including a personal finance tracker and invoice management platform — on AWS, reducing hosting costs after migrating from Oman Data Park and enabling smoother scaling for production workloads.
- Delivered an invoice app MVP in one week, accelerating the roadmap and launching a new revenue stream.
- Oversaw infrastructure, deployment pipelines, and database architecture to ensure reliability, security, and efficient CI/CD.
- Led integrations with major Omani banks and built one of the country's first Open Banking API aggregation layers, enabling seamless access to financial data and powering new fintech capabilities.
- Developed hybrid LLM- and rule-based financial parsers using OpenAI APIs to classify SMS transactions with greater accuracy, contributing to product intelligence and helping TelyPay earn recognition as the **Best Financial App in Oman (COMEX 2023)**.

Webware

Full-Stack Developer

Muscat, Oman
Feb. 2020 – Apr. 2021

- Designed and deployed the Dar Al Atta'a Charity App, enabling mobile and web donations for local causes.
- Integrated online payments, SMS, and email notifications, improving the efficiency of donation and case management.
- Hosted and managed infrastructure on Oman Data Park IaaS, ensuring secure and stable operations.
- Delivered the project independently from concept to deployment, marking the company's first fully in-house mobile product.

RESEARCH EXPERIENCE

McKinsey & Company / Technical University of Munich (TUM)

LLM Research Engineer – StrategicAI Project (Master's Thesis)

Munich, Germany
Oct. 2024 – Apr. 2025

- Designed and developed StrategicAI, a multi-agent LLM decision-support system with custom end-to-end orchestration, combining RAG, tool use, and autonomous agent collaboration for structured, evidence-grounded decision-making.
- Implemented dynamic prompting frameworks, improving agent role alignment, context retrieval, and strategic justification.
- Achieved performance surpassing ChatGPT-4o in strategic decision-making; results published at ECML 2025.

Fusionbase / Technical University of Munich (TUM)

AI Systems Engineer – Project Lead (Industry-Academia Collaboration)

Munich, Germany
Oct. 2023 – Jun. 2024

- Led a 4-member team to design and build CreateData4AI, a collaborative annotation platform for data-centric AI.
- Developed the full-stack web platform (Next.js + FastAPI + MongoDB) enabling distributed labeling.
- Engineered the GPU/CPU-optimized pipeline using Ray for distributed embedding computation.
- Implemented real-time collaboration features, enabling multiple users to jointly perform annotation refinement tasks.

TEACHING EXPERIENCE

Technical University of Munich (TUM)

Teaching Assistant — Foundations in Data Engineering

Munich, Germany
Oct. 2023 – Feb. 2024

- Taught C++, SQL, distributed consensus algorithms (Raft), and knowledge graphs to Master's students.
- Supported course instruction with tutorials, problem-solving sessions, and guidance on advanced data engineering concepts.

German University of Technology in Oman (GUtech)

Teaching Assistant — C++ / Data Structures

Muscat, Oman
Jun. 2021 – Apr. 2022

- Mentored first- and second-year undergraduate students in foundational programming and data structures.
- Led lab sessions, graded submissions, and provided hands-on support to improve student understanding.

EDUCATION

Technical University of Munich (TUM)

M.Sc. Data Engineering and Analytics

Munich, Germany
Oct. 2022 – Apr. 2025

- cGPA 1.3/1.0
- Graduated in the top 10% of the cohort; recipient of the DAAD Master Scholarship for academic excellence.
- Served as Teaching Assistant for *Foundations in Data Engineering*, teaching C++, SQL, distributed consensus algorithms (Raft), and knowledge graphs to Master's students.
- Relevant coursework: Natural Language Processing (NLP), Advanced NLP, Foundations in Data Analysis, Introduction to Deep Learning, Distributed Systems.

German University of Technology in Oman (GUtech)

B.Sc. Computer Science

Muscat, Oman
Jun. 2016 – Sep. 2021

- Graduated with High Distinction as the top-ranked student in the university, achieving a perfect 4.0/4.0 GPA.
- Graduated first in the university, awarded the Academic Rector's Medal and a DAAD Bachelor Thesis Scholarship for research at RWTH Aachen.
- Bachelor Thesis (RWTH Aachen): Designed and implemented an open educational resource mobile app (Flutter + .NET Core) adopted by German schools to teach Creative Commons licensing; achieved 80%+ usability satisfaction in pilot studies.
- Served as a Teaching Assistant for C++/Data Structures for one academic year, mentoring first/second-year students.

HONORS & AWARDS

DAAD Master Scholarship

Awarded for top 5% academic excellence and research potential.

Munich, Germany
Oct. 2022 – Jul. 2024

Academic Rector's Medal

Conferred to the top graduating student across all majors at GUtech.

Muscat, Oman
Mar. 2022

DAAD Bachelor Thesis Scholarship

Secured one of two GUtech–RWTH scholarship seats to conduct thesis research in Germany on Open Educational Resources.

Aachen, Germany
Apr. 2021 – Sep. 2021

Oman Education Services (OES) Scholarship

Full merit-based scholarship; first and only recipient in the university's history that year.

Muscat, Oman
Jun. 2016 – Sep. 2021

ICPC Oman Champion – International Collegiate Programming Contest

First place nationally, qualified for the Egypt regional (unable to attend due to travel restrictions).

Muscat, Oman
2019

LANGUAGES

English – C1

German – A2

Arabic – Native