

Musab Umair

AI Systems Engineer | Building Scalable AI, Automation & Data Systems that Reduce Costs & Drive Business Efficiency

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🌐 [Portfolio Website](#)

📍 Karachi, Pakistan

5+

Years Experience

50+

Projects Delivered

20+

Clients Across Countries

4.9 ★

Avg Rating

PROFESSIONAL PROFILE

AI Systems Engineer and Software Engineer with 5+ years of experience delivering high-impact, production-grade solutions across artificial intelligence, automation, and full stack development for clients in healthcare, fintech, retail, education, and public sector domains. I specialize in designing and deploying scalable, intelligent systems that solve complex business challenges — including computer vision pipelines, RAG-based knowledge systems, and data-driven analytics platforms that enhance operational efficiency and enable faster, more informed decision-making. My work is focused on measurable business outcomes — optimizing workflows, reducing manual processes, and enabling organizations to scale through reliable, well-architected technology solutions. I have successfully delivered 50+ projects globally, working across diverse environments and adapting solutions to meet both technical and business requirements. I partner with startups, SMEs, and enterprise teams as a technology consultant and solution architect, delivering end-to-end systems that are secure, scalable, and aligned with long-term organizational goals.

SERVICES & SOLUTIONS I OFFER

Artificial Intelligence & Machine Learning Systems

Design and deployment of production-grade AI systems that automate operations, reduce costs, and improve decision accuracy.

- Develop custom ML/DL models achieving 20–60% performance improvements across prediction and classification tasks
- Build computer vision systems (YOLOv8, OpenCV) reducing manual inspection workloads by 50–80%
- Implement predictive analytics solutions improving forecasting accuracy and planning efficiency by 30–70%
- Deliver end-to-end AI pipelines (data → model → API → deployment) ensuring scalability, reliability, and business impact

Generative AI, RAG & LLM Applications

Build intelligent AI systems that transform knowledge access, automate workflows, and enhance user experience.

- Develop RAG-based knowledge systems reducing information retrieval time by 80–90%
- Build AI chatbots automating 40–70% of customer support queries, reducing operational load
- Implement semantic search and document intelligence systems for fast, context-aware insights
- Integrate LLM APIs with scalable architectures for enterprise-grade AI applications

Full Stack Systems & Scalable Applications

Engineer high-performance applications and backend systems aligned with business growth and scalability.

- Develop scalable SaaS platforms and custom web apps with optimized performance and security
- Design REST APIs and system integrations improving system efficiency and interoperability by 30–50%
- Build e-commerce and enterprise systems (POS, dashboards) driving operational efficiency and revenue growth
- Deliver robust backend architectures supporting high-traffic and production environments

Data Analytics, Business Intelligence & Forecasting Systems

Turn raw data into actionable insights that drive strategic decision-making.

- Build interactive dashboards (Power BI, Tableau) improving reporting efficiency by 40–60%
- Develop ML-based forecasting systems reducing manual analysis time by 70%+
- Implement KPI tracking systems for real-time business monitoring and performance optimization
- Automate data pipelines and analytics workflows to ensure accuracy and scalability

SEO & Digital Growth Engineering

Data-driven SEO strategies designed to increase visibility, traffic, and conversion rates.

- Conduct technical SEO audits improving site performance and rankings
- Execute keyword and content strategies driving 30–100% organic traffic growth
- Optimize e-commerce platforms for higher conversions and search visibility
- Implement analytics-driven marketing strategies for measurable growth

Technology Consulting & Business Automation

Strategic consulting to design scalable systems, optimize workflows, and accelerate digital transformation.

- Automate business processes reducing manual effort by 40–80%
- Design scalable system architectures (microservices, distributed systems) for long-term growth
- Implement fintech integrations and API ecosystems for seamless operations
- Provide cloud and deployment solutions ensuring reliability, scalability, and cost efficiency

TECHNICAL SKILLS

- **Artificial Intelligence & Machine Learning:** Python · PyTorch · TensorFlow · Scikit-learn · OpenCV · YOLOv8 · Deep Learning (CNN, RNN, LSTM) · Model Training & Optimization
- **Generative AI, RAG & LLM Systems:** LangChain · FAISS · ChromaDB · Vector Databases · LLM API Integration (OpenAI, Azure OpenAI) · Prompt Engineering · Semantic Search · Streamlit
- **Data Analytics & Business Intelligence:** Pandas · NumPy · Power BI · Tableau · SQL (MySQL) · Excel · Data Modeling · Forecasting & Statistical Analysis
- **Full Stack Development & APIs:** Django · Flask · FastAPI · REST API Design · JavaScript · HTML5 · CSS3 · Backend Architecture · System Integration
- **Cloud, Deployment & DevOps:** Microsoft Azure · Firebase · Docker · CI/CD Pipelines · API Deployment · Scalable System Architecture
- **CMS, E-commerce & Digital Systems:** WordPress · WooCommerce · PHP · Technical SEO · E-commerce Optimization · Digital Marketing Systems
- **Tools & Platforms:** Git · GitHub · Roboflow · LabelImg · Microsoft 365 · Automation Tools (Zapier, n8n)
- **Programming Languages:** Python · JavaScript · C# · R · TypeScript · React

WORK EXPERIENCE

Senior Freelance AI Engineer & Systems Developer

Global Clients (Direct · Platforms · International)

2021 – Present

- ▶ Delivered 50+ end-to-end AI, automation, and full stack solutions for clients across 10+ countries, supporting startups, SMEs, and enterprise environments
- ▶ Designed and deployed AI-powered systems, RAG applications, and data pipelines that reduced manual processes by 40–80%, significantly improving operational efficiency
- ▶ Built computer vision solutions, forecasting systems, and business intelligence dashboards enabling faster, data-driven decision-making across multiple industries

- ▶ Developed and integrated scalable web applications and APIs, ensuring high performance, reliability, and seamless system interoperability
- ▶ Acted as a technology consultant and solution architect, translating business requirements into production-ready systems aligned with long-term scalability goals

Software Engineer (AI & Data Systems) | SSGC — Sui Southern Gas Company *Aug 2024 – Oct 2025*

- ▶ Annotated Engineered an AI-based meter reading validation system achieving 82% accuracy, eliminating the need for manual verification and reducing operational workload by 60%+
- ▶ Processed and optimized a dataset of 17,000+ images, improving validation speed and consistency across field operations
- ▶ Designed and deployed real-time inference pipelines integrated into a Django application, enabling automated validation and immediate feedback for field teams
- ▶ Built interactive Power BI dashboards analyzing 50,000+ operational records, improving reporting efficiency and supporting data-driven management decisions
- ▶ Contributed to process optimization and digital transformation initiatives, enhancing system efficiency and reducing human error in core operations

Senior Software Engineer | DevTech Solutions *2021 – 2026*

- ▶ Developed and deployed scalable AI-driven and full stack solutions, improving operational efficiency by 30–50% across multiple business workflows
- ▶ Delivered high-impact systems including real-time AI applications, e-commerce platforms, POS systems, and forecasting tools supporting business growth
- ▶ Designed automation workflows and data dashboards, reducing manual reporting efforts by 40%+ and improving data accuracy
- ▶ Collaborated within Agile development environments, ensuring timely delivery, code quality, and alignment with business requirements

KEY PROJECTS & ACHIEVEMENTS

RAG-Based Internal Knowledge Assistant – Fahrrad-XXL

- ▶ Replaced manual document search with an AI-powered system, reducing lookup time from minutes to under 10 seconds (90%+ improvement)
- ▶ Designed scalable document ingestion and vector search pipeline with context-aware LLM responses
- ▶ Delivered a centralized knowledge system improving internal productivity and decision speed

Stack: Python · LangChain · FAISS · LLM API · Streamlit

AI Meter Reading Validation System — SSGC

- ▶ Eliminated manual verification using computer vision, achieving 82% accuracy on a 17,000-image dataset
- ▶ Reduced operational workload by 60%+ through automated validation and real-time feedback
- ▶ Built end-to-end pipeline from data annotation to deployment with integrated analytics dashboards

Stack: YOLOv8 · PyTorch · TensorFlow · LabelImg · Roboflow · Django · Power BI

Real-Time Object Detection System

- ▶ Engineered a high-performance detection pipeline processing live video streams at ~30 FPS
- ▶ Enabled real-time monitoring and automation for security-focused use cases
- ▶ Designed for scalability and deployment in production environments

Stack: Python · YOLOv8 · OpenCV

ML Sales Forecasting & Analytics Platform

- ▶ Replaced manual forecasting with machine learning models, improving prediction accuracy and reducing analysis time by 70%+
- ▶ Benchmarked multiple algorithms and deployed best-performing model into an interactive BI dashboard
- ▶ Enabled data-driven planning and strategic decision-making

[Stack: Python](#) · [Scikit-learn](#) · [Power BI](#) · [Pandas](#)

Human Activity Recognition — Assisted Living

- ▶ Built AI system for real-time activity classification using sensor data, improving monitoring reliability in assisted living environments
- ▶ Enabled automated detection of critical activities, enhancing response time and care support

[Stack: Python](#) · [TensorFlow](#) · [Scikit-learn](#) · [Sensor Data](#)

Automated Academic Warning System

- ▶ Eliminated manual CGPA monitoring by automating alerts, improving response time by 80%+
- ▶ Integrated data processing and notification workflows for real-time academic performance tracking

[Stack: Python](#) · [Power BI](#) · [SMTP](#) · [Excel](#)

AI Chatbot for Customer Support

- ▶ Reduced manual support workload by 50%+ through automated query handling
- ▶ Improved response time and customer experience using NLP and LLM-based interactions
- ▶ Designed scalable chatbot architecture for continuous learning and integration

[Stack: Python](#) · [NLP](#) · [Dialogflow](#) · [LLM Integration](#)

EDUCATION

BS Software Engineering | [Sindh Madressatul Islam University, Karachi](#)

Intermediate — Computer Science | [Govt Islamia Science College, Karachi](#)

Matriculation | [Al-Kamran Public School, Karachi](#)

CERTIFICATIONS & TRAINING

- ▶ WordPress Development
- ▶ Search Engine Optimization (SEO)
- ▶ Data Analytics & Business Intelligence
- ▶ E-commerce Management
- ▶ Freelancing & Client Management
- ▶ Analyze and Build Language Models with Azure AI
- ▶ Build a Bot with Azure AI Language
- ▶ Azure Cloud Computing Fundamentals
- ▶ AI and Speech Services with Azure
- ▶ Introduction to Azure OpenAI Service
- ▶ Introduction to Data Engineering
- ▶ Micro Controller & Embedded Systems — YRP Foundation
- ▶ Build RAG Applications: Get Started – Coursera
- ▶ Develop Generative AI Applications: Get Started – Coursera