

Atif Arif

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Objective

Strategic Computer Science Engineer specializing in AI Automation and Agentic Systems. Focused on architecting autonomous, real-world solutions that bridge the gap between complex machine learning models and scalable production environments. Seeking to leverage extensive experience in end-to-end product development and autonomous workflow design to drive innovation in a high-impact engineering role.

Summary of Qualifications

- **Agentic System Architecture:** Proven expertise in designing multi-agent autonomous workflows and real-time voice-driven AI interfaces for complex business logic.
- **End-to-End Product Ownership:** Extensive background in leading projects from initial system requirements (SRS) through to full-stack development, cloud deployment, and maintenance.
- **Advanced Technical Research:** Specialized experience in multi-modal deep learning and feature fusion, particularly within the medical imaging and diagnostic domain.
- **Operational Intelligence:** Adept at optimizing high-latency data streams, managing real-time state synchronization, and building robust backend infrastructures for enterprise-level automation.
- **Solution-Oriented Engineering:** Strong capability in translating ambiguous business challenges into technical roadmaps, with a focus on reliability, scalability, and user-centric design.

Skills

- **AI & Agentic Engineering:** MCP (FastMCP), LangGraph, RAG, Multi-Agent Workflows, Microsoft Copilot Studio, Retell AI (Voice AI), OpenAI/Gemini APIs, Prompt Engineering, Vector Databases, Response Evaluation
- **Microsoft & Enterprise Stack:** Microsoft Fabric (Lakehouse, SQL Endpoints), Power Platform (Power Automate, Dataverse), Dynamics 365, Azure AD / MSAL, Azure Container Apps, SharePoint / SPFx, SAP SuccessFactors (OData)
- **Workflow & Automation:** n8n, Twilio (SIP/Voice), WhatsApp Cloud API, Webhooks, WebSocket Management, Automated Content Pipelines
- **Web Development:** Next.js, React, Angular, TypeScript, Node.js, .NET Core, FastAPI, Firebase, Tailwind CSS
- **Programming & Data Science:** Python, C, C++, Scikit-learn, Pandas, NumPy, TensorFlow, Machine Learning, Deep Learning (Medical Imaging Focus)
- **Developer Tools & Cloud:** Git, Docker, Vercel, REST APIs, SQL Server, Azure, AWS (VPC/Networking), Hostinger

Certifications & Professional Training

- **Microsoft Certified: Azure Administrator Associate (AZ-104)**
- **Microsoft Certified: Fabric Analytics Engineer Associate (DP-600)**
- **Microsoft Certified: Fabric Data Engineer Associate (DP-700)**
- **Microsoft Certified: SQL AI Developer Associate (DP-800)**
- **GitHub Copilot Certification (GH-300)**
- **DataCamp:** Developing LLM Applications with LangChain; Understanding Prompt Engineering; Large Language Models (LLMs) Concepts; Generative AI Concepts
- **KodeKloud:** Docker Training Course for the Absolute Beginner

Experience

AI Software Engineer I

Imperium Dynamics

Karachi, Pakistan

03/2026 – Current

- **Agentic AI & MCP Integration:** Architected and deployed a custom **Model Context Protocol (MCP)** server wrapping **SAP SuccessFactors** OData v2 APIs using **FastMCP** on **Azure Container Apps**, powering an LLM-driven HR Copilot for secure employee-data and policy-document retrieval.
- **Copilot Studio Agents:** Designed and deployed conversational AI agents in **Microsoft Copilot Studio**, including an email-summarization agent with automated **SharePoint** document output, grounding responses on enterprise knowledge sources for business automation.
- **Enterprise SSO & Identity:** Implemented end-to-end **Azure AD** single sign-on between **Dynamics 365 CRM** and a **Next.js** iframe application - MSAL browser token acquisition, JWT/JWKS validation, JIT user provisioning, and cross-site (SameSite=None) cookie persistence.
- **Power Platform Automation:** Built **Power Automate** custom connectors integrating external REST APIs, resolving OAuth 2.0 Swagger spec issues and a recurring connector field-reset bug.
- **Data & Solution Architecture:** Researched and authored architecture proposals for **Microsoft Fabric** and **Dataverse Link** integrations spanning Dynamics 365 F&O, CE/Dataverse, and UKG data sources, with supporting diagrams and client-facing documentation.
- **Backend Development:** Built structured **FastAPI** backend services following **Domain-Driven Design (DDD)** principles, with clean modular architecture and async processing.
- **Authentication & Data Integration:** Implemented **Azure AD / Service Principal** authentication flows (Tenant ID, Client ID, Secret) for secure, token-based API access, and connected backend services to the **Microsoft Fabric Lakehouse**, executing queries against SQL endpoints to enable analytics workflows.

Junior AI Engineer

SharkStack

Remote

07/2025 – 03/2026

- **Architected Agentic Workflows:** Designed and deployed complex multi-agent systems using **LangGraph** and **n8n**, enabling autonomous decision-making for real-time voice agents and content generation pipelines.
- **Advanced Voice AI Integration:** Engineered low-latency production voice agents using **Retell AI** and **Twilio**, implementing custom state-management for seamless switching between technical support and reception modes.
- **Production-Grade RAG & NLP:** Optimized high-accuracy Retrieval-Augmented Generation (RAG) systems for document processing, utilizing advanced feature selection and response evaluation to ensure hallucination-free outputs.
- **API & Infrastructure Management:** Developed robust backend architectures in **Node.js** and **Python** to handle **WebSocket** streaming, SIP trunking, and high-volume data synchronization between Firebase and third-party APIs.
- **End-to-End Product Ownership:** Led development from SRS to deployment, ensuring reliable automated systems.

Software Developer, Internship

LookFlock

Remote

06/2025 – 09/2025

- Built automated data pipelines using Python web scrapers and Firebase Firestore to collect and structure large-scale e-commerce datasets.
- Implemented data cleaning and normalization (e.g., prices, product variants, images) to make datasets consistent and ML-ready.
- Developed a Next.js dashboard with real-time monitoring, enabling visibility into pipeline health, errors, and job summaries.

Frontend Developer, Internship

Cloud Fusion Global

Karachi, Pakistan

01/2025 – 03/2025

- Developed and maintained Angular applications, implementing dynamic UI components and optimizing performance.
- Built SharePoint web parts using React, enhancing user experience and functionality within SharePoint Online.
- Collaborated with cross-functional teams to integrate APIs and ensure seamless data flow in web applications.

Projects

• Multi-Modal Radiomics for Enhanced Retinal Disease Detection (FYP)

Developed multi-modal deep learning pipeline integrating radiomics, fundus imaging, and OCT scans to improve detection, staging, and treatment planning of retinal diseases, with a focus on feature fusion, interpretability, and clinical applicability.

• Autonomous Home Maintenance Voice Agent

Developed a real-time voice AI agent using Retell AI, Twilio, and a custom LLM backend built with Node.js and LangGraph. Engineered a dynamic state-switching architecture that toggles between 'Technical Support' (via transcript RAG) and 'Receptionist' modes. Implemented robust WebSocket management for low-latency audio streaming and integrated SIP

trunking with automated call transfer capabilities.

- **Multi-Agent YouTube Scriptwriting Assistant**
Architected an n8n-based automation pipeline that generates structured, 8-minute video scripts. The system performs competitor research and employs creator-specific tone modeling via an AI agent to ensure brand consistency. Engineered a multi-stage workflow that handles research, drafting, and hook optimization.
- **Autonomous Social Media Content Engine**
Engineered a fully automated news-to-post pipeline using n8n and Gemini. The system autonomously monitors NGO websites for updates, extracts key information, and generates optimized captions and visual descriptions. Integrated the Facebook Graph API to automatically publish content, enabling a 24/7 self-sustaining social media presence with zero manual intervention.
- **AI Aggregated Grocery Platform**
Developed a grocery aggregation platform that collects products from major grocery stores and centralizes them into a unified shopping experience, with Next.js (frontend), Node.js (backend), and Firebase. Integrated an AI-powered chatbot to assist users with product search, recommendations, and order guidance.
- **BuySellXpress Ecommerce Platform**
BuySellXpress is a full-stack eCommerce platform designed using Angular 18 for the frontend and .NET Web API for the backend. It enables users to buy and sell products while providing robust order and delivery management.
- **Clock In/Out Attendance System in React & SPFx**
- **Web Crawler using Python**
- **Ride Booking System in C++**
- **Pharmacy Management System in C**

Education

BSc Computer Science <i>FAST NUCES</i>	Karachi, Pakistan <i>2022-2026</i>
Relevant Courses: Programming Fundamentals, OOP, DSA, Artificial Intelligence, Data Science, DevOps, Software Engineering, Operating System & Computer Networks	
Intermediate <i>Government Dehli College</i>	Karachi, Pakistan <i>2020-2022</i>
Matriculation <i>Akbar Public School</i>	Karachi, Pakistan <i>2020</i>