

TAYYUB AHMED

AI Engineer | Agentic Systems & Automation

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SUMMARY

AI Engineer shipping production agent systems end-to-end — voice pipelines, computer-use agents, browser automation, and multi-agent workflows. I specialize in the integration layer where LLMs meet real business systems: legacy software with no API, CRMs with half-working endpoints, email inboxes used as databases. I learn tools as problems require them and ship fast. Currently building agent platforms used by four clients across the UK.

EXPERIENCE

Techanzy

Apr 2025 — Present

AI Solutions Engineer — Integration Specialist

Lahore, Pakistan

- Ship production agent systems for four active UK clients across dental, grants consulting, facilities management, and home services — covering voice, computer-use, browser, and analyst agents.
- Own the integration layer end-to-end: requirements scoping, architecture, implementation, deployment, and client handoff. Connect agents to client systems including CRMs, Airtable, Slack, custom software, and legacy platforms with no exposed APIs.
- Co-built Promptheus (promptheus.io), a live SaaS product for writing, scoring, and organizing prompts, with built-in AI assistant and Chrome extension. Launched publicly; productionized after an internal hackathon.
- Built Atlas, an internal platform that converts PM spec documents and chat instructions into deployed voice and analyst agents — reducing agent creation time from days to minutes across the team.
- Engineered reliability patterns across all deployments: retries with backoff, timeouts, screenshot checkpointing, centralized logging, secrets isolation, rate limiting, and full session recording for debugging.

SELECTED PROJECTS

Pulse — Computer-Use Agent for Legacy Dental Software

PRODUCTION

A computer-use agent for software that has no API.

- **Problem:** a UK dental group's booking software runs on a remote Windows server with no exposed endpoints. Their scheduling team was manually re-typing every appointment.
- **Built:** Built an Airtable-triggered computer-use agent that operates the software through browser automation. Redis queue for job management, Slack integration for real-time observability, full session recordings for every run.
- **Result:** First production campaign booked 7 of 7 appointments — 100% success rate at \$14.05 in total API spend across the campaign.
- **Stack:** Anthropic Computer Use, OpenAI, E2B sandboxed VMs, Redis, Airtable, Slack API, Python.

BGET Grants Intake & Support Automation

PRODUCTION

End-to-end pipeline: eligibility calls, document validation, platform submission.

- **Problem:** a UK grants consultancy was processing applications entirely by hand — eligibility screening, document collection, validation, and submission to the British Gas Energy Trust (BGET) platform.
- **Built:** Designed a multi-agent pipeline: (1) inbound voice agent asks eligibility questions on live calls and branches outcomes; (2) email automation sends eligible applicants an Airtable form for fields and documents; (3) analysis agent verifies form completeness and document validity using LLM vision; (4) valid cases submit directly to BGET, invalid ones trigger an outbound re-engagement agent.
- **Result:** Replaced manual triage entirely. Human team only touches decisions that actually need judgement.
- **Stack:** Voice pipelines, LLM document analysis, Airtable orchestration, email automation, multi-agent handoff.

Browser Automation Platform — Streamlit + Browser-Use SDK

PRODUCTION

Dockerized, horizontally scaled browser-agent platform.

- **Built:** Built a multi-tenant browser automation platform where users submit natural-language prompts and watch lightweight Chromium windows execute tasks live in sandboxed VMs.
- **Scale:** Containerized execution — each user request spins up an isolated Docker container (up to 100 running in parallel) with full session isolation.
- **Deploy:** Dockerized system behind Nginx reverse proxy, supporting 400+ concurrent users with isolated sessions. Integrated Airtable MCP for centralized storage of scraped results.
- **Stack:** Browser-Use SDK, Streamlit, Docker, Nginx, MCP, Airtable, Python.

Atlas — Agent Creation Platform

INTERNAL PRODUCT

Agent creation by conversation.

- **Built:** Internal platform that turns PM spec documents and chat instructions into deployed voice and analyst agents. Eliminated the manual spec-to-code cycle across the team.
- **Stack:** LLM orchestration, voice pipeline integration (ElevenLabs, Vapi-style architectures), document parsing, agent deployment automation.

Promptheus — SaaS Product (promptheus.io)

LIVE

Grammarly, but for prompts.

- **Built:** Full SaaS product for writing, scoring, and organizing prompts — with a custom AI assistant called Atom built in. Team collaboration, marketplace, pricing tiers. Chrome extension in final review.
- **Role:** Engineer; co-built with small team in an internal hackathon, then productionized.
- **Stack:** Next.js, Supabase, streaming LLM APIs, Chrome extension APIs.

TECHNICAL SKILLS

Agent Frameworks & LLMs Anthropic Claude (incl. Computer Use), OpenAI, LangChain, Browser-Use SDK, E2B, MCP (Model Context Protocol), multi-agent orchestration.

Voice & Telephony Voice pipeline design, low-latency agent architectures, tool-calling, handoff logic, inbound/outbound/hybrid flows.

Integration & Automation Airtable, Make.com, Stripe, Slack API, Gmail/Outlook, webhook orchestration, legacy system integration, CRM connectors.

Backend & Infrastructure Python, Flask, Django, Docker, Nginx, Redis, MongoDB, SQL, CI/CD (GitHub Actions), AWS, Azure, virtual machines, sandboxed environments.

ML & Data PyTorch, Transformers, NLP, Pandas, NumPy, Scikit-Learn, MLflow.

Production Hygiene Queues, observability, session recording, cost accounting, retries & timeouts, secrets isolation, rate limiting, audit logging.

EDUCATION

Punjab University College of Information Technology (PUCIT)

2021 — 2025

Bachelor of Science in Data Science