

MUHAMMAD WARIS

Backend & AI Engineer · Python · FastAPI · LLM-Powered Systems

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SUMMARY

Backend & AI engineer who has shipped 7 production-grade systems end-to-end — multi-tenant SaaS platforms, real-time WebSocket applications, and AI assistants across travel, e-commerce, and restaurant automation. Deep hands-on experience integrating Claude and GPT into real business workflows using function calling and agentic tool-use, building MongoDB-backed multi-tenant architectures, and delivering everything from auth and billing to AI orchestration solo, in Python with REST API design throughout. Two platforms currently live in production.

TECHNICAL SKILLS

Core: Python, OOP, Async (asyncio), REST API design, Jinja2

Backend: FastAPI, WebSockets (real-time & streaming), background/worker services, producer-consumer queues, multithreaded pipelines

AI / LLM: Claude API & OpenAI API, tool-use / function calling, prompt engineering, LLM-based scoring agents, conversational AI assistants

Data: MongoDB Atlas & Motor (async) — schema design, indexing, aggregation, multi-tenant DB isolation, crash-safe batch processing

Auth & Security: JWT, OAuth 2.0 (Google), bcrypt, session auth, rate limiting, webhook signature verification

Integrations: WhatsApp Business API, Duffel (flights), Paddle Billing, ClipDrop, RapidAPI, Resend (email/OTP), Tweepy

EXPERIENCE

Backend AI Engineering Intern — FlyRank AI — Jul 2026 – Present

- Building backend AI engineering assignments and capstone work using **Python** and **REST API** design within FlyRank AI's structured Backend AI Engineering track.
- Applying LLM integration — including **function calling** and tool-use patterns — plus backend architecture and system design practices to real project briefs.

SELECTED PROJECTS

Flintel — market intelligence SaaS — *background discovery engine across 6 B2B niches · getflintel.com*

- Architected a two-service platform (background discovery engine + user-facing web app) in **Python** using **FastAPI** and a **REST API** layer, monitoring Reddit and X for buyer-intent signals across Fintech, Cybersecurity, CRM, Logistics, Recruitment, and Accounting.
- Built multi-threaded background workers with Google SERP discovery, auto-generated fuzzy keyword matching, and Claude/GPT-based lead scoring using **function calling** for structured output.
- Designed a shared + per-user MongoDB caching architecture with crash-safe, restart-recoverable batch processing.

Stack: Python · FastAPI · Motor (async MongoDB) · Claude/GPT scoring · RapidAPI · multi-threading

AI Travel Booking Assistant — *conversational real-flight search & booking · github.com/abdulwaarisinfo-dot*

- Full-stack AI travel agent built in **Python** with **FastAPI** booking real flights via natural conversation — Claude autonomously decides when to trigger flight search via **function calling** / tool-use.
- Integrated Duffel flight API with webhook signature verification, Google OAuth 2.0 + email/password auth, and per-session conversation persistence with post-booking archival, exposed through a REST API.

Stack: Python · FastAPI · Claude (tool-use) · MongoDB · Duffel API · OAuth 2.0 · webhooks

Multi-Tenant Restaurant Reservation SaaS — *isolated booking platform per restaurant owner (in progress)*

- Each owner gets a fully isolated per-tenant MongoDB database behind a single REST API URL, with JWT auth, OTP email verification, and Paddle subscription billing, all built in Python.
- Claude-powered booking agent using function calling for natural-language date parsing; live WebSocket owner dashboard.

Stack: Python · FastAPI · MongoDB (multi-tenant) · JWT · Paddle · WebSockets · Claude API · Resend

WhatsApp AI Restaurant Bot — *24/7 order-taking & reservations in EN / UR / DE*

- Production WhatsApp assistant in Python handling multi-item order parsing, fuzzy product matching, natural-language reservation booking, delivery-charge logic, and a full admin CRM via REST API.
- Claude fallback for open-ended questions using function calling; replaces a manual support workflow entirely.

Stack: Python · FastAPI · WhatsApp Business API · MongoDB · Claude API

PixUp8K — AI image upscaling & background-removal SaaS — *live · pixup8k.com*

- Users upscale photos to 4K/8K and remove backgrounds through a Python/FastAPI REST API, with per-feature usage quotas, JWT auth, real-time WebSocket processing notifications, and full image-history tracking.

Stack: Python · FastAPI · ClipDrop API · Pillow · MongoDB Atlas · JWT · WebSockets

Stratum — 10-tool AI growth platform for e-commerce operators — *live · strategistai-platform-1.onrender.com*

- 10 specialized AI tools (marketing strategy, ad copy, SEO, profit analysis, store audits) built in Python, driven by a centralized prompt-engineering registry and exposed via REST API, with streaming WebSocket generation and a rate-limited freemium model.

Stack: Python · FastAPI · OpenAI API · streaming WebSockets · MongoDB · JWT

Stellar Style — multilingual real-time e-commerce chatbot — *EN / UR / DE*

- 24/7 WebSocket shopping assistant in Python with intent/keyword matching, product relevance scoring, natural-language price parsing, and a built-in analytics engine tracking searches, clicks, and language usage.

Stack: Python · FastAPI · WebSockets · MongoDB Atlas · langdetect

CERTIFICATIONS

- AI Fluency: Framework & Foundations — Anthropic
- Chatbot: The Development Guide 2025 (Beginner + Advanced) — Udemy, Sept 2025 — ude.my/UC-e63d38aa-98b9-434d-970e-d77bfe7eef47

APPENDIX — VERIFICATION

FlyRank AI — Internship Engagement Letter, Backend AI Engineering Track, Issued July 22, 2026

GitHub: github.com/abdulwaarisinfo-dot

Flintel: getflintel.com

LinkedIn: linkedin.com/in/warisali-dev

Udemy Certificate: ude.my/UC-e63d38aa-98b9-434d-970e-d77bfe7eef47

Stratum: strategistai-platform-1.onrender.com

PixUp8K: pixup8k.com