

MUHAMMAD QASIM

Agentic AI Engineer | Full Stack Developer

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PROFESSIONAL SUMMARY

Results-driven Agentic AI Engineer and Full Stack Developer with proven expertise in architecting production-grade autonomous AI systems, multi-agent orchestration platforms, and scalable SaaS applications. Delivered a **Platinum Tier hackathon project with 97% test coverage** across 122 commits. Proficient in Python, TypeScript, Next.js, FastAPI, and cloud-native architectures. Applies a rigorous Spec-Driven Development methodology from specification through deployment, with a strong focus on cost-optimized, user-centric solutions.

TECHNICAL SKILLS

AI / Agents	OpenAI Agents SDK, Claude API, MCP (Model Context Protocol), FastMCP, A2A Protocol, LangChain, Prompt Engineering
Languages	Python, TypeScript, JavaScript
Frontend	Next.js 15, React.js, Tailwind CSS 4, Framer Motion, HTML5, CSS3
Backend	FastAPI, Node.js, REST APIs, WebSockets
Databases	PostgreSQL, Neon DB (pgvector), Apache Kafka, Qdrant, Confluent Cloud
Cloud / DevOps	Oracle Cloud, Docker, Kubernetes, GitHub Actions, PM2, Vercel, Hugging Face Spaces
Tools	Git, GitHub, VS Code, Claude Code CLI, Postman, WSL2 (Ubuntu 24.04), Linux
Auth / Other	NextAuth.js v5, Web3Forms, JSON-LD, SEO Optimization

KEY PROJECTS & HACKATHON ACHIEVEMENTS

Personal AI Employee | Hackathon 0 — Platinum Tier

- **Architected** a fully autonomous AI employee system featuring 7 agent skills and 5 MCP servers for end-to-end task automation.
- **Achieved 97% test coverage** across 122 commits with Agent-to-Agent (A2A) orchestration — ranking **Platinum Tier**.
- **Deployed** on Oracle Cloud VM with PM2 process management ensuring 24/7 production uptime.

Live: <http://129.151.151.212:3000/dashboard> GitHub: <https://github.com/Psqasim/personal-ai-employee>

Digital FTE Factory (CRM) | Hackathon 5 — 24/7 AI Customer Success Agent

- **Designed and built** a CRM system for NexaFlow (B2B SaaS) handling support tickets via Gmail, WhatsApp, and Web Form channels.
- **Orchestrated** an MCP server with 7 FastMCP tools and a Skills Invoker orchestrator powering 5 specialized skills.
- **Engineered** Conversation Store pattern with 101 automated tests, Neon PostgreSQL + pgvector, and Confluent Kafka streaming.
- **Deployed** Next.js 15 frontend on Vercel and FastAPI backend on Hugging Face Spaces.

Live: <https://crm-digital-fte-two.vercel.app> GitHub: <https://github.com/Psqasim/crm-digital-fte>

Physical AI & Humanoid Robotics Textbook | Hackathon 1 — Educational Platform

- **Developed** a Docusaurus-based interactive textbook with FastAPI backend and RAG pipeline using Qdrant vector DB.
- **Implemented** multilingual support (English, Urdu, Japanese) with voice input and AI-powered conversational chat.

Live: <https://psqasim.github.io/physical-ai-humanoid-textbook> GitHub: <https://github.com/Psqasim/physical-ai-humanoid-textbook>

Task Flow | *Hackathon 2 — Cloud-Native AI Task Manager*

- **Built** a full-stack task management platform with Next.js, FastAPI, PostgreSQL, OpenAI Agents SDK, Kafka, and Dapr microservices.
- **Deployed** Kubernetes cluster on Oracle Cloud with full CI/CD pipeline via GitHub Actions.

Live: <https://hackathon-todo-orcin.vercel.app> **GitHub:** <https://github.com/Psqasim/hackathon-todo>

OPEN-SOURCE COLLABORATION

Factory-de-Odoo | *Architecture Reviewer*

- **Reviewed architecture** for a GSD orchestration framework: 33,200+ lines, 28 AI agents, and 60 Jinja2 templates for full Odoo ERP generation.
- **Collaborated** with a team of 3 engineers, contributing to a test suite of 4,048 passing tests.

GitHub: github.com/TIFAQM/Factory-de-Odoo

DEVELOPMENT METHODOLOGY

- **Spec-Kit Plus (SDD):** Constitution → Specify → Plan → Task Breakdown → Implementation — strictly phase-by-phase.
- **Two-Claude Workflow:** Browser Claude as PM (planning, prompts) + Claude Code CLI as Worker (execution, git operations).
- **Mandatory Tooling:** Context7 MCP for documentation, GitHub MCP for version control, datetime injection , circuit breaker pattern after 2 consecutive failures.
- **Cost Optimization:** Free-tier-first strategy leveraging Hugging Face Spaces, Vercel, Neon, and Confluent Cloud.

EDUCATION

GIAIC (Governor’s Initiative for AI & Computing)	2024 – Present
<i>Agentic AI Engineering Track</i>	
▪ Progressed through structured hackathon tiers (Bronze → Platinum), building toward full agentic AI and multi-agent orchestration expertise.	
Diploma in Construction (D.A.E)	2020 – 2023
Matriculation in Science — Bahria Model School	2015 – 2017