Abhishek Singh

Github: github.com/rawift
LinkedIn: linkedin.com/in/rawift
Email: rawatabhiips@gmail.com
Mobile: +91-856-9835-326
Live Project: Tracelyst Platform

Summary

- AI Engineer who designs and ships multi-agent, tool-calling and RAG-based workflows that turn business problems into reliable, measurable AI solutions. Built a live LangGraph agent platform with LLM-as-judge evaluation, multi-agent assistants and enterprise-scale semantic search for 100,000+ users. Strong in Python, SQL and API integrations, with experience in monitoring, evaluation and documentation, and a consulting-style approach to working with business stakeholders.

Skills Summary

- **Agentic AI**: Multi-agent architectures, orchestrators and specialized agents, routing and escalation logic, agent instructions and prompt design, context engineering, tool and function calling, LangGraph, LangChain, Semantic Kernel, enterprise AI copilots, Microsoft Copilot Studio, Azure AI Foundry
- **LLMs and RAG**: Retrieval-Augmented Generation (RAG), OpenAI (GPT-4, o1, o3-mini), Azure OpenAI, embeddings (OpenAI, Cohere, Sentence-Transformers), vector databases (Pinecone, Chroma, MongoDB Atlas Vector Search), semantic search, NLP, LLM fundamentals (tokens, context window, temperature, hallucinations, model selection)
- **AI Evaluation and Operations**: LLM-as-Judge, evaluation frameworks, representative test cases, regression testing, KPI monitoring, error analysis, human-in-the-loop feedback, user feedback loops, Prometheus, Grafana
- **Responsible AI and Governance**: Responsible AI, data privacy, cybersecurity standards, secure handling of confidential enterprise data, traceable and transparent AI outputs (facts, assumptions, confidence levels), guardrails, architecture and process documentation
- **Programming and Data**: Python, SQL, JSON, Git, Node.js, TypeScript, JavaScript (ES6+), Power BI, Snowflake, Dataverse, MongoDB, PostgreSQL, MySQL, Redis, dashboards and analytical products
- **Integration and Cloud**: REST APIs, GraphQL, gRPC, connector-based and enterprise system integrations, background job queues (Redis, BullMQ, RabbitMQ), Microsoft Azure, AWS (EC2, S3, Lambda, SES), Docker, Kubernetes, GitLab CI/CD, Terraform
- **Stakeholder Skills**: Business-fluent English, requirement gathering, user training and enablement, AI adoption and change enablement, technical mentoring, cross-functional teamwork, Agile, Scrum; React.js, Next.js, Tailwind CSS

Experience

- **ProPeers** — Noida, India
  Software Engineer (Hybrid) — *July 2025 – Present*
  - **Tracelyst Content Protection Platform (Live Link)**: Designed, built and deployed a live full-stack AI platform (Python, MongoDB, Next.js, Redis job queues) that finds pirated and infringing copies of a client's content across Google, YouTube, Reddit, Telegram, and other platforms. Used perceptual hashing, vector embeddings, and an LLM-as-judge for evaluation and matching of media. Built a LangGraph agent with tool calling for AI-driven scans, and automated the workflow end to end with evidence capture, a takedown process with staff verification, credit-based billing, and an analytics dashboard.
  - **AI Interview Agent**: Architected an adaptive multi-agent interview system on OpenAI GPT-4 with dynamic question generation from real-time candidate responses, prompt templates, and output guardrails. Integrated an on-screen code editor with live execution, debugging, and AI-guided hints.
  - **Social Media AI Agent**: Built an AI agent using Python, LangChain, and RAG with API integrations for real-time hashtag recommendations, live competitor analysis, trending content detection, and AI-generated SEO copy.
  - **AskAI Peer Programming Assistant**: Developed a knowledge assistant for data structures and algorithms with contextual memory, context window management, semantic search over a vector database, and adaptive suggestions powered by LLMs.
  - **Monitoring and CI/CD Pipeline**: Implemented Prometheus and Grafana dashboards for real-time metrics and anomaly detection. Managed zero-downtime deployments via Docker, GitLab CI/CD, and Azure App Service.
  - **Frontend Performance Optimization**: Optimized React and Next.js apps via lazy loading, Suspense, and edge caching. Reduced Total Blocking Time (TBT), First Contentful Paint (FCP), and LCP by over 75 percent.

- **ProPeers** — Noida, India
  Software Engineer (Remote) — *December 2024 – June 2025*
  - **Semantic Search Engine**: Built semantic search using cosine-similarity vector matching with Sentence-Transformers and a custom OpenAI embedding model, serving natural language queries for 100,000+ users and integrating results into existing business APIs and the database layer.
  - **API and Infrastructure Optimization**: Refactored 150+ REST APIs with asynchronous execution, Redis caching, and queue-based processing, reducing backend latency by 70 percent. Migrated MongoDB to self-hosted replica sets with automated Azure Blob Storage backups.
  - **Email Marketing Automation**: Integrated Redis Queue with AWS Simple Email Service (SES) to batch and send targeted campaigns to 100,000+ active users with retry logic and failure handling.
  - **Automated Payout System**: Architected a Redis-backed workflow that auto-calculates and distributes mentor earnings, eliminating manual payment processing.

Projects

- **Tracelyst – AI Content Protection Platform (Python, LangGraph, MongoDB, Redis, Next.js)**: Production AI agent platform with LLM-as-judge matching, vector search, and workflow automation. Live: platform-hazk1.centralindia.cloudapp.azure.com
- **Krypty – Ethereum Decentralized Application (Solidity, Hardhat, React.js, MetaMask)**: Built Solidity smart contract using Hardhat to send ETH and custom messages on-chain with immutable Ethereum storage. Developed React and Tailwind CSS frontend with MetaMask wallet integration. github.com/rawift/krypty
- **QuickArt – E-commerce Web Application (MongoDB, Express.js, React.js, Node.js, Stripe)**: Built full-stack MERN e-commerce platform with Stripe payment gateway API, JWT authentication, product management, shopping cart, and real-time inventory updates. github.com/rawift/quickart

Education

- **Vellore Institute of Technology** Bhopal, India
  Bachelor of Technology - Computer Science and Engineering *July 2021 – June 2025*
  Courses: *Data Structures, Algorithms, Artificial Intelligence, Machine Learning, Networking, Databases, Operating Systems*

Co-curricular Activities

- **Hackathon Winner:** Won 1st place in a college hackathon, competing against over 120 participants.
- **Competitive Programming:** Solved nearly 600 data structures and algorithms (DSA) problems and ranked among the top 500 in GeeksforGeeks (GFG) University Rankings.