ABHISHEK MURTHY

Founding Engineer - AI Agents, Model Systems & Infrastructure
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PROFESSIONAL EXPERIENCE

Founding Engineer, ProSights (YC W24), New York, NY, USA **February 2025 - Present**

- Scaled ProSights to 15 of the top 20 global private equity firms within one year, building agentic systems, document intelligence, and Excel workflows for finance professionals.
- Built Architect, a generic DAG workflow builder in Python, FastAPI, and PostgreSQL on Kubernetes, composing data connectors, transformations, and specialized agents through versioned graphs & conditional artifact routing.
- Engineered Architect's control plane around Restate for durable parallel execution, scheduled runs, dynamic graph expansion, and node-level reruns; hardened multi-agent execution with isolated Docker/Cloud Run workspaces, MCP tools, adaptive reconciliation, replayable traces, and outcome verification.
- Spearheaded product and engineering for Recreate, converting PDFs, images, and presentations into Excel/JSON at ~3,000 pages/min with >94% table-extraction accuracy; boosted chart-to-table accuracy 38% across irregular axes, stacked series, OCR noise, and distorted legends.
- Architected a multimodal inference layer routing pages across LLMs, vision-language models, OCR, computer vision, and deterministic heuristics, reducing inference cost 27% through model selection, retries, fallbacks, and quality gates.
- Developed a C# VSTO Excel add-in for hardcode-to-formula conversion, normalization, delta analysis, and real-time backend synchronization; deployed it to hundreds of users.

Co-founder & Founding Engineer, Ticketdude, Bangalore, KA, India **November 2022 - February 2025**

- Bootstrapped Ticketdude from zero to one and six-figure ARR, owning product and engineering across mobile, web, backend, payments, infrastructure, releases, and customer operations.
- Delivered a cross-platform event platform across Flutter, React, and Django REST for event creation, custom registration, ticketing, QR check-in, payments, invoices/payouts, and real-time notifications.
- Slashed QR check-in API p90 latency 29% through Django/MySQL tuning; hardened production with Firebase Auth and Cloud Messaging, Sentry/Crashlytics, Razorpay webhooks, and GitHub Actions/Fastlane CI/CD.

Software Development Engineer 2, BlinkIt, Bangalore, KA, India **May 2021 - October 2022**

- Led Blinkit's fintech engineering team and shortened financial report-generation time 25% by implementing asynchronous React/Next.js workflows, optimizing DynamoDB reads, and using Redshift for data aggregation.
- Orchestrated a 35% performance boost and processed 500,000+ orders/day by building an Automated Replenishment System using Kubernetes, Airflow, Django and Kafka for BlinkIt's 10-minute delivery service.
- Minimized system downtime and improved MTTR by automating failure detection with Grafana and OpsGenie, configuring Kubernetes pod auto-scaling, and deploying resilient services on AWS ECS with Docker.
- Revitalized BlinkIt's open-source collaboration by contributing to the widely used ERPNext library, reducing application cold boot time by 30%.
- Organized supply chain tech systems by implementing an ETL pipeline with Apache Airflow, integrating Kafka for real-time streaming and Spark for distributed processing, amplifying forecasting accuracy in BlinkIt's inventory systems.

Full Stack Engineer, Tvast, Bangalore, KA, India **February 2020 - May 2021**

- Delivered Shell's web/mobile operations platform with role-based access control (RBAC), workforce scheduling, cash-flow reconciliation, and fuel-station workflows.
- Engineered KPMG social-intelligence tooling for geo-segmented analysis and a DRDO data platform for multi-source ingestion, metric aggregation, pivot analysis, and interactive dashboards.
- Built a gym-franchise management platform with cross-platform workflows and custom WebRTC/Agora video calling.

SKILLS

Languages & Frameworks: Python, TypeScript, JavaScript, Go, C#, Java, SQL, Dart, FastAPI, Django, Node.js, React, Next.js, React Native, Flutter, GraphQL, PyTorch, LangChain, LlamaIndex, DSPy, Strands Agents, Google ADK, Modal
Agent Runtimes & Architecture: Restate, Temporal, Agent Runtimes, Execution Harnesses, Durable Execution, Workflow Orchestration, Multi-Agent Systems, Model Context Protocol (MCP), Agent Skills, Tool Calling, Function Calling, Human-in-the-Loop, Memory, Context Engineering, Guardrails, Sandboxed Execution
Model Systems & Agent Tooling: OpenRouter, LiteLLM, OpenCode, Model Gateways, Model Routing, Retries, Fallbacks, Quality Gates, LLMs, VLMs, Multimodal Inference, Prompt Engineering, RAG, Embeddings, Fine-tuning, LLMOps
Data & Distributed Systems: PostgreSQL, MySQL, Redis, MongoDB, DynamoDB, ChromaDB, Pinecone, Kafka, Spark, Airflow, Elasticsearch, REST APIs, Distributed Systems, System Design, Event-Driven Architecture, Microservices
Cloud, Infrastructure & Observability: Kubernetes, Docker, AWS, GCP, Azure, Cloud Run, CI/CD, Sentry, Prometheus, Grafana, New Relic, Datadog, VSTO, Excel Add-ins

EDUCATION

M.Eng - Artificial Intelligence, Duke University, Durham, NC, USA **August 2023 - December 2024**

- GPA: 3.8, TA: MEng AI Cloud Ambassador, assisting peers with cloud deployments on AWS, GCP, and Azure
- Won 1st place in HackDuke, a 36-hour intercollegiate hackathon organized by GitHub MLH (2023)
- Winner of HackDuke App Challenge - Developed BlueDine, an AI-powered mobile app for Duke campus dining (2024)

B.E - Computer Science, Visvesvaraya Technological University, Bangalore, KA, India **August 2016 - August 2020**

- GPA: 3.47, Appointed as the Developer Student Club Lead by Google for the Bangalore community (2017)
- Won numerous local, national and international hackathons with the most prestigious ones being Smart India Hackathon (2022), Smart India Hackathon (2018) followed by the Singapore-India Hackathon (2018)
- Published a research paper titled "Demand Drivers For Commodities" in the International Journal of Creative Research