

Mohammed Nihal

AI Software Engineer

nihalnihz95@gmail.com · +91 9074900749 · Mangaluru, India
linkedin.com/in/iam-nih4l · github.com/iam-nih4l · iamnih4l.vercel.app

PROFESSIONAL SUMMARY

AI Software Engineer focused on Generative AI, multi-agent reasoning frameworks, and scalable AI systems. Blends a rigorous technical foundation in machine learning and computational psychology with a product-driven approach. Proven track record of architecting AI workflows and optimizing data pipelines to build high-impact applications.

EDUCATION

Sahyadri College of Engineering & Management
Bachelor of Technology (BTech) in Artificial Intelligence
- **Involvement:** Creative Lead at Synergia National Tech Fest, Zenken Club.

Sep 2023 – Sep 2027
Mangaluru, India

TECHNICAL EXPERTISE

Languages: Python, Java, C++, TypeScript, SQL, Bash
AI/ML & GenAI: Multi-Agent Systems, RAG, OpenAI API, Gemini API, Prompt Engineering, LLM Evaluation
Backend & Systems: REST API Development, Distributed Architecture, Vector Databases, Time-Series Analysis
Developer Tools: Git, Docker, PyTorch, TensorFlow, System Design, UiPath

ENGINEERING & AI PROJECTS

CouncilAI | Python, Agentic Reasoning, Multi-Modal Models, System Design2026

- Architected a multi-model research framework dedicated to medical image diagnosis, integrating analysis pipelines for MRI, CT, and X-ray data.

- Engineered an agentic reasoning layer utilizing specialized "model councils" to debate and synthesize diagnostic outputs, improving complex inference reliability.

Spacecraft Anomaly Detection | TensorFlow, Time-Series Forecasting, Python2025

- Architected a robust time-series forecasting model to detect multivariate telemetry anomalies in simulated spacecraft operational data.

- Implemented LSTM networks to analyze streaming sensor metrics, benchmarking model performance against baseline statistical methods to optimize automated response protocols.

Hallucination Simulation Suite | PyTorch, Hugging Face, LLM Evaluation2025

- Built a comprehensive evaluation framework to benchmark and quantify hallucination rates across open-source LLMs under various adversarial prompt injections.

- Designed data pipelines to stress-test RAG systems, systematically pinpointing failure modes in context synthesis and generating reproducible safety benchmarks.

SocietyAI | Python, Ray, Redis, Semantic Memory, React2024

- Developed an immersive, agentic social simulation environment orchestrating autonomous AI entities capable of long-term memory, planning, and emergent social interactions.

- Designed the state-management backend leveraging Redis to maintain agent context, alongside a vector database architecture for semantic memory retrieval.

PROFESSIONAL EXPERIENCE

Social Media Manager & Content CreatorDec 2025 – Mar 2026

*ASTRAZEN INTERIORS (Freelance)*United Arab Emirates (Remote)

- Automated digital workflows to streamline asset scheduling and deployment, optimizing content delivery pipelines.

- Analyzed audience reach and engagement metrics to enhance performance and direct data-driven digital strategy.

Multimedia Editor & Creative LeadSep 2023 – Nov 2025

*Synergia Sahyadri (Freelance)*Mangaluru, India

- Managed tight deadlines and coordinated complex content workflows across multiple phases for a national-level tech event.

- Collaborated closely with cross-functional organizers to ensure consistent storytelling and visual branding across all digital platforms.

CERTIFICATIONS & JOB SIMULATIONS

AI & Development: Build with AI Bootcamp (Google for Developers) · GEN AI Camp (AlgoUniversity) · Prompt Engineering (Dubai Future Foundation)

Software Engineering Simulations: JPMorgan Chase & Co. (REST API, Java) · Electronic Arts (Data Structures)

Automation & Product: UiPath Automation Workshop · Action AI Startup University: AI Essentials