Sandesh Narendra Bagmare

Applied AI | Python Backend | Agent Infrastructure

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Associate Software Analyst at PTC, working on Python agent workflows, retrieval and LLM evaluation. Experience with LangGraph checkpointing, privacy-aware data handling and developer tooling.

TECHNICAL SKILLS

Languages: Python, SQL, Bash; Java, JavaScript
Applied AI: LangGraph, LangChain, retrieval-augmented generation (RAG), Qdrant, Model Context Protocol (MCP), Azure AI Evaluation, DeepEval
Backend and data: FastAPI, PostgreSQL, SQL Server, MySQL
Cloud and engineering: Azure, Terraform, Helm, Kubernetes, Docker, Git, Jenkins, unit testing, security remediation

EXPERIENCE

Associate Software Analyst | PTC Software

ThingWorx AI R&D | Full-time | Jul 2025 - Present | Pune, India

- Developed stateful agent workflows with LangGraph, with attention to reliability and privacy-aware data handling.
- Built an AI Agents Evaluation Framework integrating Azure AI Evaluation, DeepEval, four custom evaluators and HTML/Allure reporting.
- Engineered a CLI-based Agent Development Kit (ADK) for automated, customizable agent creation.
- Contributed to TWX Copilot RAG pipelines using Qdrant, document chunking and hybrid reranking.

Intern | PTC

Solution Central | Internship | Jul 2024 - Jun 2025 | Pune, India

- Developed Helm chart unit tests across four Solution Central repositories and addressed CSP-header and dependency findings from Invicti, Prisma and Black Duck.
- Created Terraform scripts for Azure PostgreSQL Flexible Server 16 deployment and Bash scripts to validate PostgreSQL migrations.
- Worked on retrieval-augmented generation and agent workflows.

TECHNICAL FOCUS & PUBLIC PROJECTS

LangGraph checkpointing

- Working knowledge of persistent state and resuming agent workflows.

Privacy-aware data handling

- Working knowledge of data minimization and responsible use of context.

AgenticQ - Agent Tooling Discovery and Scaffolding

github.com/sandeshbagmare/AgenticQ

- Built plugin indexing, recommendations and scaffolding through CLI, web/JSON-RPC and VS Code, with discovery and scaffolding tests. Integrates the wshobson/agents upstream marketplace.

EDUCATION AND RECOGNITION

Vishwakarma Institute of Technology, Pune | B.Tech, Electronics and Telecommunication Engineering
Dec 2021 - May 2025 | CGPA: 8.84 | PTC Products Spotlight Winner, Q3 2025; PTC Applause

PUBLICATIONS

Coauthor, **Vision-Based Humanoid Robotic Palm for Amputee Person using Deep Learning**, IEEE ESCI 2024
doi.org/10.1109/ESCI59607.2024.10497297

Coauthor, **Safety with Technology: A Smart SOS Device**, IEEE ICCUBEA 2023
doi.org/10.1109/ICCUBEA58933.2023.10392200