Karthik Bhandarkar

Software Engineer · Python, Backend & AI Systems

Bengaluru, Karnataka, India · +91 98450 75077 · karthikbhandarkar2004@gmail.com · karthik-bhandarkar.vercel.app
linkedin.com/in/karthik-bhandarkar · github.com/Karthik-bhandarkar

SUMMARY

Computer Science and Engineering graduate with internship experience building Python applications and automated reporting workflows. Developed APIs, multi-agent systems, SQL-based analysis, and computer vision applications, with hands-on experience in testing, containerization, and deployment.

TECHNICAL SKILLS

Languages: Python, SQL (T-SQL, SQLite), Java, JavaScript
Frameworks & Libraries: FastAPI, LangGraph, LangChain, Pandas, NumPy, Scikit-learn, React, OpenCV
Databases: SQL Server, SQLite, MongoDB Atlas, FAISS
Tools & Practices: Git, GitHub, Docker, Docker Compose, pytest, Tableau, REST APIs, OAuth 2.0, JWT

EXPERIENCE

Python & AI Intern — Infosys Springboard
Oct 2025 – Dec 2025
Remote

- Architected a LangGraph educational assistant coordinating four specialist agents for retrieval, analytics, and guardrails using abstract base classes and factory registries.
- Built FastAPI endpoints with Pydantic validation, SQLite persistence, and FAISS-based semantic retrieval for institutional documents.
- Implemented an O(1) LRU session cache and a heap-based task scheduler; authored 57 passing pytest tests across seven modules.
- Containerized the application using a multi-stage Dockerfile and Docker Compose.

Python & Data Analytics Intern — Dyashin Technosoft Pvt Ltd
Jul 2025 – Oct 2025
Bengaluru

- Automated preparation of 6,607 student records across 20 attributes using Python, Pandas, and NumPy.
- Wrote T-SQL reporting queries using grouping, conditional aggregation, and casting to analyze student cohorts and performance trends.
- Created an interactive Tableau dashboard showing performance indicators, pass/fail distributions, and attendance trends.

PROJECTS

Arogya — Multi-Agent Wellness Assistant — FastAPI, MongoDB Atlas, React
Jan 2026 – Mar 2026
github.com/Karthik-bhandarkar/agent-backend · github.com/Karthik-bhandarkar/agent-backend

- Built an asynchronous FastAPI backend coordinating five domain agents and streaming responses through WebSockets and Server-Sent Events.
- Implemented Google OAuth 2.0 and JWT authentication, with PBKDF2 SHA-256 password hashing and asynchronous MongoDB Atlas persistence.
- Developed a React interface and deployed the application using Netlify and Render.

Intelligent Assistive Vision System — Python, YOLOv11-nano, OpenCV, BLIP
Sep 2025 – Jan 2026
github.com/Karthik-bhandarkar/Intelligent-Assistive-System · github.com/Karthik-bhandarkar/Intelligent-Assistive-System

- Fine-tuned YOLOv11-nano to detect 13 navigation hazard classes, measuring 3.3 ms model inference per frame on an NVIDIA Tesla T4 GPU.
- Separated BLIP scene captioning into background threads to keep hazard detection running; integrated ESP32-CAM video and audio alerts in five languages.

EDUCATION

B.E. in Computer Science and Engineering, CGPA: 8.26/10
Dec 2023 – May 2026
East West Institute of Technology · Bengaluru, Karnataka

CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional — Oracle University (Sep 2025)
- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate — Oracle University (Aug 2025)