Dipak Dhangar

+91-96895-17791 dhangardip09@gmail.com LinkedIn GitHub

Summary

Second-year B.Tech undergraduate focused on backend and application-level systems, with verified open-source contributions to production codebases. Experienced in reading and modifying large repositories, building backend services, and emphasizing correctness, reliability, and maintainability in API-driven systems.

Education

R.C. Patel Institute of Technology, Shirpur
B.Tech in Artificial Intelligence & Machine Learning — Expected May 2028
CGPA: 7.55 / 10

Open Source Contributions

Microcks (API Mocking & Testing Platform) — *2025* — PR #1915

- Improved backend observability by aligning JavaScript live trace span attributes with shared `CommonAttributes`.
- Investigated tracing inconsistencies across script engines and raised a publicly tracked issue with proposed fixes.
- Addressed maintainer feedback, resolved build failures, and validated changes through CI prior to merge.

Scikit-learn (Large-Scale Python Library) — *2025 – Present* — PR #32317

- Refactored internal module structure to improve maintainability and consistency across core library components.
- Modified Cython-based execution paths while adhering to long-term API stability and backward-compatibility guarantees.
- Collaborated with maintainers through structured code reviews and CI validation in a large production codebase.

Forest Connectivity Analysis – C4GT (GovTech Open Source) — *2025 – Present* — GitHub

- Built data processing workflows for large-scale geospatial datasets with emphasis on correctness and reproducibility.
- Designed raster-to-vector transformation pipelines to support downstream analysis and policy use cases.

Projects

Orchestrix – Backend Job Orchestration Engine — *2025* — GitHub

- Designed and implemented a backend system for asynchronous job execution with retries, state transitions, and lifecycle tracking.
- Built failure-handling mechanisms for long-running tasks, emphasizing correctness, idempotency, and basic observability.

LearnMate 2.0 – Backend-Driven Learning Platform — *2025 – Present* — GitHub

- Designed modular REST APIs for authentication, progress tracking, and user state management.
- Implemented JWT-based authentication for stateless client–server interactions.
- Focused on backend correctness, data consistency, and maintainable service boundaries.

Technical Skills

- **Programming Languages:** Python, C++, Go
- **Core CS:** Data Structures and Algorithms, Object-Oriented Programming
- **Backend & Systems:** REST APIs, Node.js, PostgreSQL, MongoDB
- **Tooling:** Git, Linux, Docker, CI workflows
- **Libraries (Working Knowledge):** Scikit-learn, NumPy, Pandas

Achievements

- Robotex India 2025 – **3rd Place (National Level)**
- Active contributor to production-grade open-source systems (Scikit-learn, Microcks)
- Solved 150+ algorithmic problems; LeetCode rating **1535+**
- Selected contributor for C4GT (Code for GovTech) national open-source initiative