

MANDAR SURYAVANSHI

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Education

Bachelor of Technology (B.Tech) – Computer Science / Data Science

2025 – 2029

Ajeenkya DY Patil University, Pune

Pune, India

CGPA: 8.68/10.0

Relevant Coursework: Data Structures and Algorithms, Machine Learning, System Design, OOP, Database Management Systems

Experience

Coding Blocks School Of Technology

Jun 2026-Present

AI, ML & Data Science Intern

- Working on real-world AI/ML and Data Science projects under industry mentorship during a 6-week intensive program.
- Gaining hands-on exposure to model building, data pipelines, agile workflows, and collaborative software development.

Projects

AI Multi-Agent Operating System | Python, FastAPI, LangChain/LangGraph, Redis, Vector DB, Docker, React

[GitHub](#)

- Designed a **multi-agent AI system** where specialized agents collaboratively perform complex tasks — planning, research, memory retrieval, and response generation.
- Implemented agent orchestration, **long-term memory**, and tool-calling pipelines using modern LLM frameworks for scalable, context-aware task execution.

Distributed AI Interview Simulator | Python, FastAPI, WebSockets, React, PostgreSQL, Whisper AI, Docker

[GitHub](#)

- Built an AI-powered interview simulation platform with real-time voice/text interaction, adaptive questioning, and performance evaluation targeting **Google-style SWE interviews**.
- Designed scalable backend services with asynchronous processing and analytics-based feedback generation, reducing evaluation latency by **40%**.

AI Memory Engine & Personal Knowledge OS | Python, Vector DBs, RAG, FastAPI, PostgreSQL, Redis

[GitHub](#)

- Developed an AI memory engine for semantic search, long-term context retention, and personalized knowledge retrieval using vector embeddings.
- Implemented retrieval-augmented generation (**RAG**) pipelines achieving context-aware response accuracy improvements, enabling scalable personal knowledge management.

Intelligent Airport Operations & Digital Twin Platform | Python, Streamlit, SQLite, Pandas, NumPy, Plotly, Scikit-learn

[GitHub](#)

- Built an enterprise-style airport management system that simulates **end-to-end airport operations** — from passenger check-in and baggage handling to aircraft takeoff and landing — integrating AI-based scheduling, predictive analytics, and **real-time monitoring**.
- Engineered a **digital twin architecture** with live data pipelines and **anomaly detection** to optimize runway utilization and reduce average ground delay by **35% in simulation**.
- Designed **modular microservices** for flight scheduling, gate assignment, and predictive maintenance using FastAPI and **Redis pub/sub, with a React-based real-time control dashboard**.

Technical Skills

Programming Languages: Python, C++, Java, JavaScript (ES6+), SQL, Go (Golang)

Backend & APIs: FastAPI, REST API, WebSockets, Node.js, React, HTML/CSS

AI / ML: LangChain, LangGraph, RAG Pipelines, Vector Databases, Whisper AI, Embeddings APIs

DevOps & Tools: Docker, Git, GitHub, PostgreSQL, Redis, MongoDB, Postman

Core Concepts: Data Structures & Algorithms, System Design, OOP, Distributed Systems, Microservices

Certifications & Achievements

- Contributor :- GirlScript Summer of Code 2026: Contributed to AI/ML open source repositories, merging production-level PRs.
- Contributor :- Nexus Spring of Code 2026: Contributed to distributed systems and backend tooling projects.

Soft Skills

- Project Management
- Team Management
- Problem Solving