Omkar Deshmukh

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EDUCATION

Pune Institute of Computer Technology — Pune, Maharashtra
Bachelor of Engineering in Computer Engineering — *Nov. 2022 – Jun. 2026*
- SCGPA - 9.26

RMD Sinhgad College — Pune, Maharashtra
completed 12th grade — *Aug. 2020 – May 2022*
- Overall - 94.4%
- PCM - 95.6 %

Podar International School — Pune, Maharashtra
Completed 10th grade — *Aug. 2010 – May 2020*
- Overall - 98.8 %

ABOUT ME

I am a proficient web developer and an AI/ML developer who likes to keep up with new technologies and learn new things. I am also very competitive and like to solve coding problems frequently.

TECHNICAL SKILLS

Languages: Java, Python, C++, JavaScript, HTML/CSS
Frameworks: React, Node.js, Tailwind
Developer Tools: Git, GitHub, Eclipse, VS Code, PyCharm, Vercel, Streamlit
Libraries: Express, ZOD, JWT, Recoil, Mongoose, Sequelize, FAISS, LangChain, LangGraph, Crew AI
Databases: MongoDB, Postgres
Technologies: Conventional ML Models, Retrieval-Augmented Generation (RAG), Large Language Models (LLMs), AI Agent Development

CODING PLATFORM PROFILE

Leetcode | *Rating 1711* | Profile
- Completed 340+ questions

CodeChef | *Rating 1618* | Profile
- 3 star

EXPERIENCE

Backend Engineer (Intern) — May 2024 – Aug 2024
TechnoGrowth Software Solutions Pvt. Ltd — *Pune, MH*
- **Project Overview:** Contributed to the development of the Taht-Talbak project, a comprehensive platform combining functionalities similar to Uber, Porter, and Zoomcar for the Kuwait market. The platform aimed to enhance mobility services for users in Kuwait, offering ride-hailing and logistics solutions.
- **Key Functionality:**
  * Engineered REST APIs to manage complex scenarios efficiently, enabling seamless interaction between users, drivers, and the platform.
  * Integrated Mapbox API for geocoding based on longitude and latitude, allowing accurate location data and real-time navigation services.
  * Implemented zone management functionality based on client specifications to handle geographical areas and operations.
  * Added socket functionality to connect drivers and the server for real-time order emission and updates, enhancing communication and operational efficiency.
- **Tech Stack:** Node.js, Express.js, Mapbox API, WebSockets, RESTful APIs

WEB + AI/ML PROJECTS

LogSentry | *Random Forest, XGBoost, LLaMA 3.1 (8.1B params), React, Node, flask* | Deployed (Github)

- ∗ **Project Overview:** Developed an automated error log categorization system that classifies logs into critical, non-critical, and warning levels, providing real-time insights into system health.
- ∗ **Key Functionality:** The system continuously monitors a specified error log file path, updating classifications in real-time as new logs are generated.
- ∗ Utilized machine learning models, including Random Forest and XGBoost, for high accuracy in classifying error logs.
- ∗ Implemented troubleshooting pages for each error type, enhanced by LLaMA 3.1 (8.1B parameters) to provide contextual solutions and guidance for efficient issue resolution.

AI/ML PROJECTS

AI Agentic Search Engine | *Langchain, langGraph, Serper, Scraper* | Deployed (Github)

- ∗ **Project Overview:** Developed an Agentic search engine leveraging Langggraph to build a multi-node workflow, enabling efficient data retrieval and processing.
- ∗ **Key Functionality:** Integrated multiple nodes including Planner, Selector, Reporter, Reviewer, Router, and FinalReport to streamline the data-fetching and reporting process.
- ∗ The system leverages Serper and Scraper to fetch data from the internet, providing concise and accurate output through the power of large language models (LLMs).

Autonomous Code Review Agent System | *FastAPI, Celery, Redis, AI Agents* | (Github)

- ∗ **Project Overview:** Built an AI-powered system to automate GitHub pull request reviews using autonomous agents, providing structured feedback asynchronously via a REST API.
- ∗ **Key Functionality:** Integrated FastAPI for API management, Celery for asynchronous task handling, and Redis for efficient task state management.
- ∗ The system utilizes advanced LLM models to analyze code across multiple languages, identifying issues such as style violations, potential bugs, and performance improvements.
- ∗ **Architecture Highlights:** Composed of FastAPI, Celery workers, AI agents, and GitHub integration for seamless pull request analysis and result retrieval.

EduPlus Chatbot | *Langchain, FAISS, LLaMA 3.1 (70B params), Streamlit* | Deployed Github

- ∗ **Project Overview:** Developed an advanced chatbot designed to assist students with inquiries related to EduPlus ERP software, enhancing their user experience and accessibility.
- ∗ **Key Functionality:** Implemented a Retrieval-Augmented Generation (RAG) architecture, leveraging FAISS for efficient vector-based search and context retrieval, combined with LLaMA 3.1 (70B) for generating accurate and contextual responses.

WEB PROJECTS

TechMart | *React, Node, Express, OAuth, MongoDB* | Deployed Github

- ∗ **Project Overview:** Developed a website where users can buy and sell electronics, providing a seamless platform for transactions and user management.
- ∗ **Key Functionality:** Implemented OAuth (Google Sign-in) for authentication alongside traditional username/password authentication. Enabled users to create, manage, and edit ads, and update their personal information.

Internship Details Management System | *MySQL, Express, Node, React, Zod* |

- ∗ **Project Overview:** Developed a comprehensive management system for a college to efficiently handle and manage students' internship details.
- ∗ **Key Functionality:** Designed and implemented a custom query handler for versatile database queries, enabling the system to support various data retrieval needs. Configured data ingestion from Excel files and student inputs, allowing for customized report generation based on college-specific requirements.
- ∗ **Additional Details:** Deployed the frontend on Vercel for easy access, while hosting the backend on college infrastructure for seamless integration.

Volunteering

Member at PICT MUN   Jan 2023 – Sept 2023
Team Marketing

Member at PICT EDC   Sep. 2023 – Feb 2024
Team Publicity and Operations

Member at PICT IEEE   Jan 2023 – Present
Technical Team

Achievements

Hackathons : Finalist in COEP Hackathon