Aditya Agnihotri

AI Engineer

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EXPERIENCE

MLOps Engineer, End-to-End House Price Prediction System – Independent Project   **May 2025 — Jun 2025**
- Simulated a production-grade ML pipeline using **DVC** for data versioning and **MLflow** for tracking experiments and model metrics.
- Containerized a live model inference API with **FastAPI + Docker**, enabling environment-independent deployment.
- Set up automated CI/CD workflows using **GitHub Actions** to train, test, and deploy models reliably.
- Focused on reproducibility, modular pipeline design, and model lifecycle management.

Backend Developer, User Authentication System - Mini Project   **Jul 2025 — Jul 2025**
- Built an extensible microservice for user authentication using **Express.js**, **JWT**, and **bcrypt** to simulate plug-and-play integration into larger systems.
- Implemented **middleware-driven route protection**, role-based access policies, and secure password encryption.
- Emphasized production readiness with clear API documentation.
- Designed the system as a backend module that can scale with minimal refactoring.

Full Stack Developer, CodeOrbit – Collaborative Cloud IDE - In Progress   **Jul 2025 — Present**
- Architecting a scalable, browser-based IDE with **real-time collaboration** using **Socket.IO** and **Redis** queues for task handling.
- Built a container-based execution engine to support multi-language code execution via **Docker**, replicating cloud coding workflows.
- Integrated **GitHub OAuth** to allow seamless login and project syncing, mimicking real dev team workflows.
- Currently optimizing backend architecture for persistent project storage and cross-user collaboration at scale.

PROJECTS

User Authentication System (Node.js + Express), Backend Developer, Link   **Jul 2025 — Jul 2025**
- Designed modular RESTful APIs for login, register, and protected routes.
- Developed a secure user authentication system using Express.js and JWT.
- Implemented role-based access, token validation, and password encryption (bcrypt).

CodeOrbit – Cloud IDE Platform (In Progress), Full Stack Developer, Link   **Jul 2025 — Present**
- Building a web-based code editor supporting real-time collaboration and GitHub integration.
- Developed backend using Node.js, Express.js, MySQL, and Redis.
- Working on OAuth-based GitHub sync, containerized code execution (via Docker), and REST API routing.
- Designed scalable backend architecture for project management and code persistence.

End-to-End House Price Prediction (MLOps Project), Machine Learning Developer, Link   **May 2025 — Jun 2025**
- Built a regression model pipeline with real estate data to predict house prices.
- Integrated **DVC** for data versioning and **MLflow** for experiment tracking.
- Created a containerized FastAPI service for live model inference and deployed using Docker.
- Automated training and deployment with **CI/CD via GitHub Actions**.

EDUCATION

Galgotias University, **Greater Noida, India** - *Bachelor of technology, Computer Science (AI & ML Specialization)* - *(GPA: 8.02)*   **Sep 2023 — Present**
Gained hands-on experience with **Object-Oriented Programming**, **Java**, and **Python** through coursework and personal projects.
Studied core subjects including **Computer Organization & Architecture**, **Data Structures**, and **Operating Systems**.
Applied AI/ML fundamentals in building real-world systems using tools like **Docker**, **MLflow**, and **FastAPI**.

CERTIFICATIONS

Introduction to Machine Learning, **Kaggle Learn**   **Jan 2025**
Certification of Participation, **CodeAstra**   **Apr 2025**

SKILLS

Languages	: Python, Java, JavaScript
Backend	: Node.js, Express.js, FastAPI, REST APIS
Frontend	: HTML, CSS, Bootstrap, Javascript
Database	: MySQL, SQLite
Tools & DevOps	: Git, GitHub, Docker, Docker Hub, GitHub Actions, Prisma
MLOps & Libraries	: MLflow, DVC, Scikit-learn, Pandas, NumPy, Matplotlib, ZenML
Concepts	: Data Structures & Algorithms, OOP, System Design (learning)
Soft Skills	: Communication, Time Management, Team Collaboration