

# KUSHAL MITTAL

Final Year Undergraduate, A Stackless Engineer

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## EDUCATION

### Poornima College of Engineering

B.Tech in Artificial Intelligence and Data Science

2022 – 2026

CGPA: 9.30 / 10.0

## EXPERIENCE

### Ernst & Young (EY)

Jul 2025 – Present

AI/ML Intern

Bengaluru, India

- Built scalable ML workflows in **PySpark** on **Databricks**, accelerating large-scale data preprocessing and analysis pipelines.
- Developed advanced **Generative AI solutions** with **LangChain**, automating client workflows and improving knowledge retrieval efficiency.
- Collaborated with senior consultants in an **agile environment**, embedding AI-driven automation into enterprise business systems.

### National Informatics Centre (NIC)

May 2025 – Jul 2025

Machine Learning Intern

Lucknow, India

- Automated help-desk workflows by processing **10K+ unstructured emails** into clean CSV datasets using **Python scripting**.
- Performed **EDA, advanced data cleaning, and ML classification modeling**, ensuring accurate and reliable email categorization.
- Deployed trained classification models via a scalable **REST API**, enabling real-time automated label assignments.
- Reduced manual intervention by integrating **ML-driven insights**, streamlining help-desk support and increasing productivity.

### Compucom Software Limited

Jun 2024 – Sep 2024

Backend Developer & ML Intern

Jaipur, India

- Designed, tested, and deployed **15+ RESTful APIs** in **PHP**, ensuring secure and reliable backend performance.
- Built a hotel booking **cancellation prediction model**, applying EDA, preprocessing, and supervised ML techniques for higher accuracy.
- Translated analytics into actionable insights, **guiding hotel operations** and enhancing strategic decision-making efficiency.
- Validated and optimized backend systems using **Postman testing**, ensuring seamless scalability and smooth integration.

### Phoenix Advanced Softwares Pvt. Ltd.

Aug 2023 – Sep 2023

Web Development Intern

Jaipur, India

- Developed and deployed **10+ responsive web pages** with HTML, CSS, JavaScript, and PHP, improving engagement by ~15%.
- Implemented secure **JWT-based authentication and session handling**, strengthening application data protection and reliability.
- Automated large-scale data scraping from **50+ online sources** using Selenium, boosting refresh frequency and efficiency.
- Enhanced usability and accessibility by applying **user-centric design principles and creative UI improvements**.

## PROJECTS

### QA Chatbot | Python, LangChain, Google Gemini API, HuggingFace, ChromaDB, Streamlit

[GitHub](#)

- Built an intelligent **topic-specific assistant** using **LangChain** and **Google Gemini API** for accurate FAQ-based query answering.
- Created a local **vector database** with **ChromaDB** and **HuggingFace embeddings** for semantic search and efficient retrieval.
- Designed a strict **custom RetrievalQA prompt** to prevent hallucinations, ensuring reliable and safe responses.
- Developed a real-time **Streamlit frontend**, enabling interactive chatbot conversations with persistent vector storage.

### RAWG GameHub | React, Redux Toolkit, Clerk Auth, React-Bootstrap, RAWG API

[GitHub](#) | [Live Demo](#)

- Built a scalable **game discovery platform** integrating **Clerk authentication** and **RAWG API**, showcasing data for 500+ games.
- Applied **real-time search**, 5+ filters, sorting, and pagination using **Redux Toolkit**, improving user navigation experience.
- Designed a responsive and dynamic UI using **React-Bootstrap** and **custom CSS**, with personalized **bookmarking system** for 100+ saved games.

### Car Price Predictor | Python, Scikit-Learn, Flask, Jupyter, PyCharm

[GitHub](#)

- Built a machine learning pipeline to predict prices for 1,200+ cars using **Linear Regression**, achieving over **85% accuracy**.
- Performed data cleaning, encoding, and **feature engineering** with **Pandas/NumPy**, improving model performance by 12%.
- Deployed the model with a **Flask web app**, allowing users to get price estimates based on 5+ input features.

### Custom CMS | PHP, MySQL, HTML, CSS, JavaScript

[GitHub](#)

- Designed a secure CMS for blog publishing with **role-based access control (admin/editor)**, managing 20+ pages.
- Engineered a normalized **MySQL database schema** and used **JOIN queries** for real-time data retrieval.
- Executed full-stack **CRUD operations**, login authentication, and form validation with **PHP sessions** and **Bootstrap/Flexbox** UI.

## SKILLS

**Programming Languages:** Python, JavaScript, C, C++, PHP, HTML, CSS, SQL

**AI/ML & Data Science:** LangChain, LangGraph, PySpark, Scikit-Learn, Pandas, NumPy, Matplotlib, Seaborn, TensorFlow, OpenCV

**Frontend & Web Development:** React.js, Next.js, Node.js, Express.js, Bootstrap, Tailwind CSS

**Databases:** MySQL, MongoDB, PostgreSQL, Faiss, Chroma

**Tools & Platforms:** Git/GitHub, VS Code, PyCharm, Jupyter Notebook, Google Colab, Kaggle, Databricks, Postman, Vercel, Replit, Clerk Authentication, Firebase Studio, NotebookLM

**Coursework:** SE, DSA, DBMS, CN, OOPS, OS, DMT, CD, AOA, CC, AI, ML, ANN

## ACHIEVEMENTS AND CERTIFICATIONS

- Qualified **GATE 2025 – CS** with a score of **477** and **AIR 8217**, demonstrating strong foundational knowledge in core CS subjects.
- Achieved **Microsoft Certified: Azure AI Fundamentals (AI-900)**, validating cloud-based AI/ML concepts and applications.
- Completed **Prompt Design in Vertex AI**, showcasing applied skills in **Generative AI** and LLM optimization.
- Secured **1st Place** in **Blind Coding** at **Aarohan 2024** held at both PCE Jaipur and PIET Jaipur among 60+ participants.
- Solved over **500+ DSA problems** on LeetCode and GeeksforGeeks, mastering arrays, stacks, queues, and linked lists.