

# KUNAL PAL

## Education

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Marwari Vidyalaya High School Mumbai

2015 - 2018

SSC

79%

Wilson College Mumbai

2018 - 2020

HSC PCM — MHT-CET : 97.12 percentile

71.54%

Vivekanand Education Society Institute of Technology

2021 - 2025

Bachelor of Engineering in Information Technology

8.5/10 CGPA\*

## Technical Skills

**Languages:** C/C++, Python, SQL

**Web Development:** HTML, CSS, JavaScript


**Frameworks:** React.js, Tailwind CSS, Node.js, Express.js, Flask, Django

**Databases:** MySQL, MongoDB


**Development Tools:** Linux, Postman, Git, GitHub, Tableau, Figma (UI/UX)

**IT Constructs:** OOPS, DSA, DBMS, CN, OS

## Projects

*MovieMate : Smart Movie Selector* 

- **Created** a movie recommender system with **93%** accuracy using a dataset of **5,000** movies, providing personalized suggestions with movie names and posters.
- **Utilized** NLP and vectorization techniques.
- **Integrated** TMDB API to fetch and display movie details.
- **Tech Stack:** Python, NumPy, pandas, NLTK, scikit-learn, Streamlit, requests, TMDB API.






*AI-Powered Mathematical Expression Solver* 

- **Developed** a full-stack **AI-powered web application** with an interactive drawing canvas for real-time mathematical equation recognition and solutions.
- Designed a **Python/FastAPI** backend integrated with **Google Gemini AI** for equation recognition and analysis.
- Built a responsive **React.js** frontend with a drawing canvas (multi-color, reset support) and rendered equations using **MathJax**.
- Implemented an efficient image processing pipeline using **Pillow** and Base64 for seamless canvas-to-backend communication.
- **Technologies:** React.js, Python, FastAPI, Google Gemini API, MathJax, Tailwind CSS, Axios, React-Draggable.

*BookSage : Intelligent Book Recommender System* 

- **Developed** a book recommendation system with high accuracy, leveraging a dataset of over **1 million** books. The system presents the best **50** books based on ratings and votes and provides **personalized book suggestions** with titles and covers based on user input.
- **Transformed** data from **1 million** rows to **55,000** rows.
- **Performed** data cleaning, **utilized** cosine similarity for recommendations, and **integrated Flask** for the backend and **Bootstrap** for the frontend.
- Tech Stack: HTML, CSS, Bootstrap, Python, NumPy, Pandas, scikit-learn, Flask, Jupyter Notebook, pickle.

## Achievement

- Earned a **3-star rating** (1656) on **GeeksforGeeks**, securing an **Institute Rank of 30**. 
- Achieved a **contest rating of 1510** on **Coding Ninjas**, earning the **Ninja Dominator** title. 
- Participated in the **Avishkar Project Competition**, organized by **Mumbai University**, and received a **participant certificate**. 
- **Awarded** a certificate for demonstrating competence in the completion of the **"Workshop/Fundamentals of Deep Learning"** 
- **Google Cloud** 

## Extra-Curricular Activities

*Aarna Foundation* 

July 2023 – August 2023

- **Volunteered** 4 hours weekly for a month at Aarna Foundation orphan kids
- Also **performed** other activities such as cleaning premises, distributed books and toys.