

Divya Parihar

+91-8319707556 | divyabgt2224@gmail.com | [LinkedIn](#) | [GitHub](#)

EDUCATION

VIT Bhopal University

B.Tech in Computer Science CGPA: 8.64

Kothrikalan, MP

2022 – 2026

M C S Higher Secondary School

Class XII (M P Board) Percentage: 95.8%

2021

St. Mary's English Medium School

Class X (CBSE) Percentage: 96.6%

2019

PROJECTS

Course Labs

- Developed **4** machine learning-based recommendation models using **collaborative filtering** and **cosine similarity**, to personalize content and improve user engagement.
- Worked with datasets containing over **20,000**, user-item interactions per dataset, optimizing model accuracy by tuning hyperparameters.
- Achieved a **15–20%** improvement in recommendation accuracy compared to baseline methods.
- Successfully integrated the best-performing model into a website frontend using **PyCharm**, enabling real-time recommendations.

Excel Cleaner

- Built a data preprocessing and cleaning pipeline for Excel files using , **FastAPI** improving data handling efficiency by **40%** .
- Automated detection and correction of formatting errors, missing values, and duplicates across files with **5,000+** rows each.
- Enabled seamless API-based data input and output, reducing manual data cleaning time by **60%** for users.
- Used Python's **openpyxl** and **pandas** libraries for efficient data manipulation and Excel file handling.
- Designed RESTful API documentation using **Swagger UI** to assist users in testing endpoints and understanding data processing workflows..

Medicine Recommender

- Engineered a personalized recommendation engine to suggest over-the-counter (OTC) medicines using user-item data from the Flipkart dataset.
- Implemented **SVD** and **NMF**-based collaborative filtering on a dataset of over **30,000** user-medicine interactions, achieving high-dimensional latent factor extraction.
- Applied metaheuristic algorithms — **Gray Wolf Optimizer**, **Dandelion Algorithm**, and **Crayfish Optimization** — to optimize 10+ hyperparameters per model, improving recall and ranking accuracy.
- Boosted model performance by **22–28%** in RMSE and recall through strategic parameter tuning and model selection.

TECHNICAL SKILLS

Languages: C++, Java, Python, SQL, HTML, CSS

Databases: Pandas Dataframe, SQLite

Frameworks & Libraries: FastAPI, Scikit-learn, Seaborn, NumPy, Matplotlib, Bootstrap, Streamlit .

Dev Tools & Platforms: PyCharm, Git, GitHub, VS Code, MATLAB/Simulink, Autocrat

CERTIFICATIONS & EXTRACURRICULAR ACTIVITIES

MyCaptain Web Development Certificate

Extracurricular Achievements: Organized 3+ events for FinTech Club with 100+ attendees each.