

Ritesh Patidar

Second Year Postgraduate

Department of Computer Science and Engineering

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EDUCATION

Degree	Institution	CPI/%	Year
MTech (CSE)	Indian Institute of Technology, Gandhinagar	8.43	2022-Present
BTech (CSE)	Shivajirao Kadam Institute of Technology & Management, Indore	7.91	2017 -2021
Class XII	Shree Ambika Adarsh H.S. School, Badnawar	88.8	2015-2016
Class X	Shree Ambika Adarsh H.S. School, Badnawar	83.6	2013-2014

EXPERIENCE

- **Teaching Assistant, IIT Gandhinagar** [Dec 2021-Present]
 - **Introduction to computing:** Handled a batch of **20+ students** out of 300+ and conducted lab sessions on Python programming, conducted viva voce and quizzes during the course.
 - **Probability and data visualization:** Managed a batch of 20+ students and conducted lab sessions for Python data science libraries. Conducted exams and evaluations.
 - **Aarohan: Foundation program for PG students:** Served as a proficient backend technical team lead responsible for overseeing and managing tasks related to feedback and attendance compilation.
- **Summer Intern, Amstech Incorporation Private Limited** [Aug -2019]
 - Java-centric corporate training initiative where I cultivated expertise in Core Java, MySQL, and the technicalities of front-end and back-end development processes.
 - Acquired hands-on skills through active involvement in practical implementation, effectively applying theoretical knowledge to real-world scenarios.

SKILL SUMMARY

- **Languages:** C, C++, Python, MY-SQL, HTML5, CSS, LaTeX
- **Tools:** MS Visual Studio, NetBeans, Replit, Git, Jupyter Notebook, Hugging Face, Streamlit, Docker
- **General:** Natural Language Processing, DBMS, Linux, Pytorch, NumPy, Pandas, Matplotlib, Flask

PROJECTS

- **Feature Extraction from Scientific Documents** [May 2023 – Present]
 - Actively involved in the development of an innovative model like Meta's Nougat, under the guidance of **Prof. Mayank Singh**, with the objective of converting **PDF documents into LaTeX code**
 - Proficiently curated datasets and completed preprocessing tasks. Currently engaged in experimental work on model architecture, while conducting an extensive review of prior models and scholarly literature for insights and best practices
- **Maintenance portal: IIT Gandhinagar** https://github.com/PatidarRitesh/IITGN-Maintenance_Portal [Jan 2023 – May 2023]
 - Designed and built a Python-Flask web app for IIT Gandhinagar community members to submit complaints on issues like electricity, furniture, air conditioning, plumbing, etc.
 - Established a resilient database connection, integrated user Google authentication, and effectively implemented the SMTP protocol for one-time password (OTP) functionality. Meticulously executed crucial backend functionalities to ensure the web application's optimal performance and streamlined data management
- **Car Category Classification** https://github.com/PatidarRitesh/Car_category_classification [Jan-2024]
 - Developed a robust Car Category (SUV, MUV, Sedan, Hatchback) Classification system, leveraging the power of the DistilBERT transformer model to meticulously analyze car brochures in PDF format
 - We input car brochure PDFs, and the model accurately predicts the corresponding car category.
- **Student Performance Indicator** https://github.com/PatidarRitesh/Student_Performance_Indicator [Dec-2023]
 - Developed end-to-end modular project predicting Mathematics marks using Kaggle dataset.
 - Implemented Flask web app with intuitive UI for personalized Mathematics score predictions.
- **EEG2Emotion: Classifying EEG signals into Emotion** https://github.com/PatidarRitesh/EEG_To_Emotion [Jan 2023 – May 2023]
 - Developed EEG-Based Emotion Recognition Through Neural Networks with Batch Normalization using DEAP dataset.
 - DEAP dataset consisting of time-series data from 32 participants while watching 40 music videos.
- **Visual Data Insights: Image Feature Extractor** https://github.com/PatidarRitesh/CNN_filter_visualization_streamlit [Aug 2022-Dec 2022]
 - Created a Streamlit application to demonstrate image feature extraction capabilities.
 - The app allows users to input an image and then perform operations such as extracting horizontal and vertical lines, enhancing image features through sharpening techniques, and visualizing the results in real time.
- **Career Decider** https://github.com/PatidarRitesh/Career_decider [Jan 2021 – May 2021]
 - Developed the 'Career Decider' web application using Java servlet. This application provides valuable insights to students seeking post-schooling career opportunities.
 - Took the lead in establishing database connectivity and handling various backend tasks to ensure the application's functionality and usefulness to students.

ACHIEVEMENTS

- Achieved an All-India Rank (AIR) of 1533 out of 100,000 in the **Graduate Aptitude Test in Engineering in 2022**.
- Attained Scholarship from the MP Government in recognition of outstanding academic performance in the year 2016.
- Secured second position at the sub-district level as the school's top performer in Intermediate Examinations.