Ashish Pandey

Roll No.:244159002

M.Tech - Biomedical Science and Engineering

Medical Devices & Diagnostics

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Github | Portfolio

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EDUCATION

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
M.Tech	Indian Institute of Technology, Guwahati	8.16 (Current)	2024-Present
B.Pharma	Dr. APJ Abdul Kalam Technical University, Lucknow	7.71	2020-2024
Senior Secondary	CBSE Board	70.2%	2017
Secondary	CBSE Board	10	2015

PROJECTS

- **Design and Development of a Smart Spirometer with Integrated Patient Data Tracking**   *July 2025 - Present*
  Research Project under Prof. Raghvendra Gupta, IIT Guwahati
  – Designing and prototyping an IoT-enabled spirometer with integrated patient data management for enhanced respiratory diagnostics.
  – Developing and training machine learning models for real-time computation of pulmonary function parameters (FEV1, FVC, FEV1/FVC ratio) to enable early detection of respiratory disorders.

- **Machine Learning–Based Real Estate Price Prediction and Recommendation System**   *June 2025 - July 2025*
  Independent Project   Github
  – Performed data preprocessing and exploratory data analysis (EDA) on 4,500 real estate records, ensuring high-quality, structured datasets for predictive analytics.
  – Developed, trained, and validated machine learning regression models for property price prediction, achieving an R2 score of 0.85 and enhancing model accuracy.
  – Implemented a content-based recommendation system using vectorization techniques and similarity algorithms to deliver personalized property suggestions.

- **Solving Inventory Inefficiencies Using Advanced SQL Analytics**   *May 2025 - June 2025*
  Consulting and Analytics Club,IIT Guwahati   Github
  – Analyzed large-scale inventory and sales datasets from 100+ retail stores using SQL, generating insights on stock levels, sales trends, and operational performance.
  – Designed and deployed interactive Power BI dashboards for real-time inventory tracking, demand forecasting, and performance monitoring to optimize warehouse operations.
  – Automated SQL queries and inventory workflows to minimize stockouts, streamline replenishment, and improve overall supply chain efficiency by 82%.

TECHNICAL SKILLS

- **Programming & Databases**: Python, MySQL
- **Data Analysis & Machine Learning**: Pandas, Numpy, Scikit-learn
- **Data Visualization**: Matplotlib, Seaborn, Power BI, Excel

KEY COURSES TAKEN

- **MOOCs**: MS Excel , SQL Bootcamp, Power BI for Data Analysis, Python Bootcamp, NumPy, Matplotlib & Pandas: Machine Learning, Statistics and Hypothesis Testing for Data science , Summer Analytics – Data Science (Certificate of Merit), Statistics and Hypothesis Testing for Data science

POSITIONS OF RESPONSIBILITY

- **Core Team Member**, Sathi Counselling, IITG   *July 2025 - Present*
  – Coordinated 2+ counselling and wellness events, engaging 100+ students.

ACHIEVEMENTS

- **Letter of Appreciation by HRD Minister Govt. of India**, Secured 10 CGPA, High School   *July 2015*
- **GATE XL**, Qualified GATE XL 2024 organized by IISC Bengaluru   *Feb. 2024*

EXTRACURICULAR

- **Volunteer**, International Conference on Micro Nano Fluidics 2025, IITG   *Aug. 2025 - Present*
- **Event Management Team Member**, Research Industrial Conclave 2025, IITG   *July 2025 - Present*
- **Mentor**, An Initiative Of Samagra Shiksha By Assam Govt., Implemented By IITG   *Dec. 2024*
- **Coordinator**, The New Nalanda, House 10, India International Science Festival 2024, IITG   *Dec. 2024*