Aman Saraswat

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EDUCATION

Indian Institute of Technology, Guwahati

B.Tech., Electronics and Electrical

- **GPA:** 7.2 (Current)
- Coursework: Mathematics: Linear Algebra, Basic Calculus, Discrete Mathematics, Probability & Random Processes, Electronics and Electrical: Probability and Statistics, Blockchain and Technology, Information Theory and Coding, Control Systems, Data Structures and Algorithms

PROJECTS

Face Recognition - IIT Guwahati Student Identifier

IIT Guwahati

- Developed an AI-powered facial recognition system using InsightFace to identify students from a dataset of 1000+ IIT Guwahati student photos, where each photo file name is mapped to the student's name.
- Integrated a Streamlit-based interface that allows users to upload a new image and returns the most likely matching student along with their stored photo, using cosine similarity between face embeddings.
- Designed a modular architecture that supports seamless dataset expansion by dynamically loading and encoding new student images, enabling long-term scalability for institutional use.

Sales Insights Dashboard - Shampoo Brand

Personal Project (based on open-source repo)

- Customized and extended an open-source Power BI dashboard project by importing shampoo brand sales data and integrating SQL-based preprocessing for region-wise, SKU-wise, and time-wise insights.
- Built an interactive dashboard with KPIs like revenue breakdown, growth trends, inventory health, and customer engagement, aimed at decision-makers for pricing and marketing optimization.
- Adapted visualizations and narrative to align with brand-specific business scenarios while maintaining best practices in business intelligence reporting and ethical reuse of open-source assets.

Placement Predictor

Personal Project

- Built a supervised machine learning model to predict whether a student will get placed based on features like CGPA, communication ability, domain expertise, and aptitude scores using scikit-learn.
- Conducted data cleaning, feature scaling, and model selection (logistic regression, decision trees) achieving over 85% accuracy and visualized decision boundaries with 'mlxtend.plotting' tools.
- Interpreted model predictions for stakeholders using classification metrics and confusion matrices, demonstrating real-world applications in academic training and HR planning.

TECHNICAL SKILLS

- Programming Languages: Python (NumPy, Pandas, Scikit-learn), R, SQL, C/C++
- Machine Learning: Regression, Classification, Clustering, Trees, Model Evaluation
- Deep Learning: Neural Nets, CNNs, Transfer Learning, TensorFlow/Keras (basic)
- Data Processing: EDA, Cleaning, Feature Engg., Missing Values, Outliers
- Visualization: Matplotlib, Seaborn, Plotly, Power BI, Tableau
- Databases: SQL (Joins, CTEs, Aggregations), PostgreSQL, pgAdmin
- Deployment & Tools: Streamlit, Flask (basic), Git, GitHub, Jupyter, Colab, VSCode

POSITIONS OF RESPONSIBILITY

Research and Industrial Conclave, Students' Academic Board, IIT Guwahati

Mar 2023 - 2024

Event's Head, Events

- Led event planning and execution for the conclave
- Invited Madhur Virli for a stand-up comedy act

ACHIEVEMENTS

- Data Analytics Certificate: Completed a comprehensive Data Analytics course on Coursera, gaining hands-on experience in SQL, R, Tableau, and Power BI.
- Active Contributor, Quora: Authored 230+ answers with 122.6K+ content views; mentored JEE aspirants and provided counseling support for Persons With Disabilities (PWD) students.