Aman Gautam

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Education

National Institute of Technology, Delhi   **2023 - 2027**
B Tech in Electronics & Communication Engineering   *7.0/10 CGPA*

Relevant Coursework

- Machine Learning
- Data Science
- Big Data(pySpark)
- NLP
- IoT
- Generative AI

Work Experience

Summer Internship at Codtech Solutions   **June 2025 – July 2025**
Data Science Intern   *Remote*

- Learned and applied MLOps practices including pipeline automation and model monitoring.
- Contributed to dataset cleaning, preprocessing, and analysis for institutional projects.
- Assisted in building data visualizations to highlight patterns and insights.
- Collaborated with the team on multiple ML projects, gaining exposure to real-world workflows.

Projects

Machine Learning Projects   [Source Code](#)

- Developed **classification, regression, and prediction models** with end-to-end ML pipelines
- Utilized **Scikit-learn, Pandas, NumPy, and Matplotlib** for data handling and visualization
- Evaluated performance using metrics like **accuracy, precision, recall, and F1-score**

Sentiment Analysis using Natural Language Processing (NLP)   [Source Code](#)

- Built a **sentiment analysis model** to classify reviews into positive, negative, and neutral categories
- Applied **text preprocessing techniques** (tokenization, TF-IDF, embeddings) for feature extraction.
- Trained and tested models including **Naïve Bayes, Logistic Regression, and LSTMs**

Data Analysis with Apache Spark   [Source Code](#)

- Conducted **large-scale data processing and EDA** on institutional datasets using **PySpark**
- Designed and optimized **ETL pipelines** leveraging RDDs, DataFrames, and Spark SQL.
- Generated **visualizations and insights** to support data-driven decision-making.

IoT-based Traffic Controller using ESP32 & Machine Learning   [Source Code](#)

- Engineered an **intelligent traffic signal controller** using **ESP32 microcontrollers** with ML algorithms.
- Implemented **sensor-based traffic system** and predictive models for adaptive signal control.
- Established **low-latency communication** between devices using ESP-NOW/Wi-Fi protocols.

Technical Skills

Languages: Python, C++, C
ML Skills: Scikit-learn, Pandas, Tensorflow, streamlit
Clouds & Databases: AWS, MySQL, MongoDB
Developer Tools: VS Code, GitHub, Jupyter, MATLAB