

NAMAN AGRAWAL

Engineering data-driven solutions with a passion for Maths, Logic, Problem-Solving & Coding.

CONTACT

✉ dr.namanagrawal@gmail.com

☎ +91 8439410326

📍 Jaipur, India

🐙 Naman-Agrawal19

🌐 Naman Agrawal

TECHNICAL SKILLS

Programming Languages

- **Python**
- **SQL:** PostgreSQL, MySQL
Window functions, CTEs, Joins, Sub-queries

Data Science & Machine Learning

- **Data Analysis:**
PySpark, Pandas, NumPy, Data Cleaning, Feature Engineering
- **Machine Learning:**
Scikit-learn, XGBoost, Random Forests, SVM, Decision Trees, Linear Logistic Regression, KNN
- **Deep Learning:**
TensorFlow, Keras, Neural Networks, CNN, RNN, LSTM, Transformers
- **Statistics:**
Hypothesis Testing, T Test, ANOVA, Chi-Square Test, Correlation, Confidence Intervals
- **NLP:**
Text Preprocessing, Tokenization, Word Embeddings (Word2Vec, GloVe), Sentiment Analysis, TF-IDF
- **Model Deployment:** FastAPI
- **Data Visualization:**
Matplotlib, Plotly, Seaborn
- **Unsupervised Learning:**
Clustering (K-means, DBScan), Dimensionality Reduction (PCA)

MLOps & Tools

- **Version Control:** Git, GitHub
- **MLOps:** Docker, MLflow, DVC, Kubernetes
- **Cloud:** AWS (EC2, S3)

Operating Systems

- **Linux, Windows**

Productivity

- **MS Office, LaTeX, Markdown**

PROJECTS

- **YouTube Comment Sentiment Analysis** 🔄 (Python, transformers)
 - Boosted pretrained transformer model accuracy from **78% to 89%** through custom preprocessing for Hinglish text
 - Designed text cleaning pipeline handling emojis, URLs, code-mixing, and Indian English dialects
 - Validated on 500 manually labeled comments (0.91 F1 for positive)
 - Developed interactive dashboard processing 700+ comments/minute with sentiment trends
- **Credit Default Risk Prediction** 🔄 (Python, CatBoost)
 - Developed ensemble model (CatBoost/XGBoost/RF) achieving **88% F1-score** on imbalanced data (40k+ rows, 60+ features)
 - Engineered features by filling nan values, **VIF (>6)**, **chi-square**, and **t-tests**, improving precision by 15% versus baseline.
 - Implemented **SMOTE** for class balancing and **hyperparameter tuning** (Bayesian Optimization)
 - Deployed as **Streamlit app** categorizing risk into P1-P4 buckets with SHAP explanations.

EDUCATION

- 📅 Aug 2024 - July 2026
📍 Chandigarh University
• Specialization in Data Science
Master of Science
- 📅 Aug 2015 - May 2019
📍 AKTU, Lucknow
• Specialization in Mechanical Engineering
Bachelor of Technology

WORK HISTORY

- 📅 Sep 2022 - Present
📍 Samatrix Consulting Pvt. Ltd. Data Analyst | Team Lead
 - **Leading a 6-member team** delivering data science education to 800+ students, achieving **4.8/5** satisfaction scores.
 - Analyze student performance data to optimize content, reducing dropout rates by **20%**.
 - Develop and teach ML/DL curriculum (**Python, TensorFlow, SQL**), with **85%+** course completion rates.
 - Design hands-on projects (**fraud detection, predictive modeling**) to bridge theory and industry applications and mentor students on real-world ML applications enhancing skills.
- 📅 Feb 2021 - Sep 2022
📍 MAT Holdings Inc.- Sonipat Mechanical Engineer
 - Automated data workflows by developing **VBA scripts** to transfer and categorize production data across **Excel** sheets, reducing manual errors by 70% and saving **10+ hours/day**.
 - Develop Pad Assembly and part drawings, Printing drawings on CAD as per customer data for PPAP approval as well as Production.
 - Managing complaints and issues from the production line.

📅 Aug 2020 - Jan 2021

📍 DB Engineering Pvt. Ltd.- Noida

Mechanical Design Engineer

- Maintain up-to-date documentation of all company processes.
- Develop the Turning CAD Drawing of parts e.g., Knives, Holders, Cutters, Blades etc.
- Make packaging part drawings from OEM for Pad e.g., Shim drawings, Wire Indicators, etc.
- Creating and managing Job Cards according to Production Unit.

📅 Jul 2019 - Aug 2020

📍 Preet Machines Ltd.- Ghaziabad

Asst. Design Engineer

- Maintain up-to-date documentation of all company processes.
- Develop the detail drawings of Rolling Mill equipments e.g., Roller Table, Pinch Roll, Chain Transfer etc. using AutoCAD.
- Create Erection drawings of General Arrangement as per Layout Bill of Materials(BOM) for purchase
- Collect and analyze the Layout and carry out calculations for the preparation of Drawings.

WRITING & PUBLICATIONS

- **Recurrent Neural Network:** Let the machine remember
- **Optimizers:** When Back Propagation meets brains
- **Logistic Regression:** When Linear is not enough to make the cut
- **Back Propagation:** Pulled Back Harder to Strike Even Stronger
- **Gradient Descent:** No Mercy for High Loss
- **Linear Regression:** Because guessing is not good enough.

ACHIEVEMENTS

- Secured **Process Automation** | Developed VBA scripts to automate cross-Excel data transfer and categorization, reducing manual errors by 70% and saving 10+ hours/day.
- **Kaggle Competitions Contributor** with code, dataset, and discussion contributions.