

# Akshat Rastogi

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## Education

VIT Bhopal University, BTech in Computer Science	Sep 2022 – Sep 2026 (Exp.)
• GPA: 9.08 (link)	
Delhi Public School, 12th Standard	Apr 2021 – Mar 2022
• Percentage: 95.4% (link)	
Delhi Public School, 10th Standard	Apr 2019 – Mar 2020
• Percentage: 93.8% (link)	

## Technologies

**Languages:** Python, C++

**Libraries/Frameworks:** NumPy, Pandas, Scikit-learn, Matplotlib, TensorFlow, PyTorch, Streamlit, Flask

**Tools / Platforms:** Tableau, Git, VS Code, Matlab, SQL

## Experience

Data Analyst Intern, Preprod Corp	Sep 2024 – Dec 2024
• Built ensemble models and clustering algorithms (DBSCAN, K-means) for pattern recognition, optimizing data pipelines for 1M+ records using SQL, NoSQL, and graph databases.	
• Integrated MLFlow for lifecycle management and collaborated in Agile sprints, improving delivery efficiency by 25%.	
• Developed a synthetic data pipeline for churn prediction, simulating telecom customer data to improve model training and enhance churn analysis by 30%.	
• Integrated a tagging and analysis module for a large-scale product review tagging system using FastAPI and Streamlit, reaching 92% tagging accuracy and improving categorization efficiency by 40% with spaCy, rule-based detection, and transformer models.	

## Projects

**Accurate AutoML tool** | Python, JavaScript, HTML5, CSS, MySQL, Docker (link)

- Built Accurate, an AutoML platform that simplifies machine learning by eliminating the need to code and improving efficiency by 60%.
- Enabled users to upload datasets and customize workflows through an intuitive, form-based interface, reducing the setup time by 50%.
- Achieved a 40% reduction in development time while enhancing accessibility and efficiency for non-technical users.

**HVAC Improvement System (HIS)** | Python, JavaScript, HTML5, CSS, PostgreSQL, GenAI (link)

- Designed a machine learning model using LGBM Regressor to predict heating/cooling loads and appliance energy consumption for HVAC optimization.
- Analyzed temperature, humidity, and pressure data, leveraging generative AI to suggest improvements for optimizing HVAC efficiency and energy savings.
- Achieved an  $R^2$  score of 61%, improving accuracy by 25%, and contributed to smarter HVAC engineering and reduced energy consumption.

## Achievements

- Secured victory in the **highly competitive Buildathon Hackathon 2024**, outshining more than 40 finalist teams to earn a coveted internship position within Preprod Corp focused on data-driven technologies.
- **Published research on Glass Transition Temperature Prediction** at RTASCE 2023, improving predictive accuracy by 15%.
- Secured placement among the top competitors **out of more than 3,000 individuals** in a notable Kaggle challenge; demonstrated a strong knowledge of feature engineering and a comprehensive understanding of predictive modeling strategies

## Certifications

- **Applied Machine Learning in Python (Coursera)** – Dec 2023
- **Privacy Security in Online Social Media (NPTEL)** – Apr 2024