



Sahil Singh
Applied Statistics and Informatics
Indian Institute of Technology Bombay

24N0062
M.Sc.
Gender: Male
DOB: 23/07/2004

Examination	University	Institute	Year	CPI / %
Graduation	Banaras Hindu University	Institute of Science	2024	8.64
Graduation Specialization: Statistics				
Intermediate	CBSE	Central Public School	2021	96.00%
Matriculation	CBSE	Central Public School	2019	93.80%

SCHOLASTIC ACHIEVEMENTS

- Secured **AIR 13** in **IIT JAM** Mathematical Statistics among 3536 candidates administered by IIT Madras [2024]
- Scored **209/300** in the **Common University Entrance Test (CUET)** for **PG** in Statistics organized by NTA [2024]
- Achieved identical **9.14 SGPA** in both **5th** and **6th semester** during my B.Sc.(Hons.) programme at BHU [2024]
- Obtained **All India Rank 139** in **BHU under graduate entrance test** for maths group conducted by NTA [2021]
- Shortlisted by **AFSB Gandhinagar** for **148-SSB interview** of **National Defence Academy II** held by UPSC [2021]

ACADEMIC PROJECTS

Effect of Different Factors Influencing Student Academics (Course Project) [Jan'24-Apr'24]

Guide: Prof. Nirpeksh Kumar, Dept. of Statistics, Banaras Hindu University

- Using a **questionnaire** surveyed **200+ students** to analyze the effect of surrounding and study habits on grades
- Applied **data visualization**, observed that stress and family income have strong effect on overall performance
- Conducted **Chi-square test**, found the independence of class attendance from the course interest and used **One Way ANOVA** to analyze the effect of study habits on academic performance by utilizing **Excel** tool packs

Flight Fare Analysis | Multiple Linear Regression (Self Project) [Jun'24-Aug'24]

- Performed **EDA** and **feature engineering**, identified flight prices are closely link to the airline and flight duration
- Added **interaction terms**, **polynomial features** and used **forward selection** to enhance the fit of the **MLR model**
- Diagnosed **multicollinearity** using **VIF**, assessed **homoscedasticity** and used **QQplot** to check **residual normality**
- Attained an **adjusted R² score** of **91.87%** on test data by employing **regularization** after **Yeo-Johnson** transform

Bank Customer Churn Prediction (Self Project) [Sep'24-Present]

- Employed **EDA** and **data pre-processing**, identifying higher churn among female and middle-aged customer
- Detected **multivariate outliers** using **Mahalanobis** distance, assessed **multicollinearity** to fit **logistic regression**
- Implemented **SMOTE** achieving **k-fold cross-validated precision** of **96.82%** and **f1 score** of **96.77%** on **test data**

TECHNICAL SKILLS

- Programming Languages: **Python** | **R**
- Microsoft Office: **Excel** | **Powerpoint** | **Word**
- Online Courses: **The Complete Python Pro Bootcamp** (by Dr. Angela Yu) | **Udemy** [Ongoing]

KEY COURSES

• Descriptive statistics and distribution theory	• Statistical Inference
• Sample Surveys	• Hypothesis Testing
• Introduction to Data Analysis using R	• Linear Algebra and its Applications

POSITIONS OF RESPONSIBILITY

Maintenance Secretary, Tansa House | Hostel Affairs, IIT Bombay [Aug'24 – Present]

- Leading the maintenance and hygiene initiatives for **200+ residents**, ensuring cleanliness and smooth operations
- Collaborating closely with hostel council members to organize and manage the key hostel events and activities

EXTRACURRICULARS

- Attended a workshop on Excel with AI, organized by Office Master, gaining the advanced skills in data analysis
- Participated and won 1st place in Kabaddi during class XI at the School Sports Carnival Meet, held in 2020

INTEREST & HOBBIES

- Coding
- Cooking
- Cricket
- Poetry & Story writing