



# Anubhav Bajaj

Roll No. 190123007

B.Tech. - Mathematics and Computing  
Indian Institute Of Technology, Guwahati

Email : abajaj@iitg.ac.in

Email : anubhavbajaj385@gmail.com

Mobile : +91-9821658909

<https://github.com/AnubhavBajaj>

## Education

Degree/Certificate	Institute/Board	CGPA/Percentage	Year
B.Tech.	IIT, Guwahati	7.72 (Current)	2019 - Present
Senior Secondary	CBSE Board	93.8%	2019
Secondary	CBSE Board	10.0	2017

## Projects

### • Twitter Sentiment Analysis

*F-1 Score: 0.605 — Natural Language processing*

[Github Link](#)

- On a data-set of tweets made by real people, predicted the sentiment by identifying deterministic hashtags and key tokens while applying **Decision Tree Classifiers** and **Neural Network** for prediction.

### • Desktop News Notifier

*Daily Utility Project*

[Github Link](#)

- Developed module for displaying latest business news as desktop notification.
- Used **BeautifulSoup** for parsing news content, **Pillow** to convert images to icons and **PyNotifier** for producing notifications of news articles.

### • Employee Attrition in Recession

*AUC-ROC Score: 0.83 – Categorical Data Analysis*

[Github Link](#)

- Estimated the probability of employees leaving the firm based on employee data about his/her past history.
- Used several Machine Learning models, a few being: **XGBoost**, **AdaBoost**, **LogisticRegression**, **Support Vector Machine** and **MLPClassifier**.
- Used **Data Visualization**, **Data-preprocessing**, **Feature Engineering**, **Feature Selection**, **Feature Scaling** and **Hyperparameter Tuning** to fine tune the model.

### • Portfolio Optimizer

*Portfolio Return : 26%*

[Github Link](#)

- On Portfolio of 5 stocks, Optimised weights based on Minimum Variance, Maximum Return, Maximum Sharpe Ratio and Maximum Treynor Ratio using 2 yrs historical data.
- Tested results of above portfolio for 1 year best return from **Sharpe Ratio Portfolio: 26%**
- Used **Numpy**, **Pandas**, **Nsepy** and **Matplotlib** to visualize **Markowitz Bullet** of simulated portfolios

## Technical Skills

- Programming Languages::** C,C++, Python,R
- ML Libraries::** NumPy, Pandas, Scikit-Learn, Matplotlib, Keras, Tensorflow\*
- Visualizations :** Matplotlib, Seaborn, Plotly, Tableau\*
- Operating System ::** Windows, Linux\*, MacOS\*
- Web Development:** Django\*, HTML, CSS, Javascript
- Database Management ::** MySQL
- Miscellaneous:** Web Scrapping, Statistics, Quant Finance, Portfolio Management

\* Elementary proficiency

## Key courses taken

- Computer Science:** : Data Structures Algorithms(Theory and Lab), Computer Organization and Architecture, Digital Design, Database Management Systems
- Mathematics:** : Probability Random Processes, Linear Algebra, Advanced Calculus, Discrete Mathematics, Number Theory Algebra, Real Analysis and Complex Analysis
- Finance:** : Financial engineering

## Achievements

- Joint Entrance Examination Advance 2019 :** Secured All India Rank **763** among 2 lakh candidates appearing for the test
- Joint Entrance Examination Mains 2019:** Secured All India Rank **99.94th Percentile** among 0.94 million candidates appearing for the test
- Kishore Vaigyanik Protsahan Yojana (KVPY SA) 2017::** Awarded KVPY Fellowship by securing **AIR 31**
- National Talent Search Examination 2017::** Cleared both stages of national level exam organised by NCERT from Delhi region.
- Creative Shock 2020:** A Global Social Business Case Study Competition by ISM University, secured 115th position worldwide among 2000+ members across 100+ countries