



**Aakash Jha**  
**Civil Engineering**  
**Indian Institute of Technology Bombay**

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**B.Tech.**  
**Gender: Male**  
**DOB: 14/05/2001**

Examination	University	Institute	Year	CPI / %
Graduation	IIT Bombay	IIT Bombay	2024	

Pursuing a **Minor degree** in **Department of Computer Science Engineering** at Indian Institute of Technology, Bombay

#### SCHOLASTIC ACHIEVEMENTS

- Achieved **99.81 percentile** in Joint Entrance Examination – Main examination among **1.1 Million** candidates
- Obtained **100 percentile** in Mathematics in Joint Entrance Examination – Main among **1.1 Million** candidates
- Secured **98.68 percentile** in Joint Entrance Examination – Advanced examination among **0.25 Million** candidates

#### PROFESSIONAL EXPERIENCE

##### Data Analyst Intern | Deloitte

[Jun '22 - Aug '22]

- Worked on **interactive automation of insights** by end-to-end analytics of a live **Tableau dashboard**, which aids in business intelligence by extracting the data from **SQL**, pre-processing through python and creating a framework using **Dash**
- Discovered different win and loss reasons of **opportunities** and analysed the open opportunities for the **top clients**
- Analyzed the performance of the employees by the use of **KPIs** and also the sales velocities for different **Business Verticals**

#### KEY PROJECTS

##### Prediction Analysis System For IPL | Winter in Data Science | Analytics Club, IIT Bombay

[Jan '22]

- Performed **Exploratory Data Analysis** for obtaining the best performing teams, and players of all time in Ipl by python
- Clustered players** into different categories based on various performance metrics by **K-Means Clustering**
- Implemented **Grid Search CV** with **Five-fold cross-validation** on **Random Forest Regressor**, **XG Boost Regressor**, **Extra Trees Regressor** and **Neural Networks** and got the best accuracy with **Extra Tree Regressor** to predict the final scores
- Curated **Logit**, **SVC**, **Decision Tree Classifier**, **Random Forest** and **XGBoost** for predicting the winner of the match

##### Handwritten Digit Recognition Based On CNN | Prof Abir De | Course Project

[May '22]

- Trained the model using grayscale images of handwritten digits with **32 Kernels** and **Max Pooling Layer** of 2x2
- Used **Stochastic Gradient Descent** as an optimizer, **He-Weight** initialization, and **ReLU** activation for hidden layers
- Implemented **Five-Fold Cross Validation** and improved the accuracy of the model by using **Batch Normalization**
- Improved the model by adding 2 more layers of **64 Filters**, which increased the accuracy from **98% to 99.3%**

##### Credit Card Fraud Detection | Course Project

[Feb '22]

- Visualized data of 275,000+ transactions using **t-SNE** to validate modelling the problem as an **Anomaly Detection**
- Built a **Gaussian Anomaly Detection** model combined with **power transforms** to detect the fraudulent transactions
- Implemented **Randomized Search CV** with Five-fold cross-validation on **Random Forest Classifier**, **LightGBM**, **XGBoost**, **KNN**, **Logistic Regression** to better model the fraudulent transactions - achieved the best results with **LightGBM**
- Leveraged the power of an **Undercomplete Autoencoder** to learn about the **hidden representations of non-fraudulent transactions** to detect the **fraudulent ones** in an **unsupervised** manner : **F2 Score = 0.962, F1 Score = 0.917**

##### Consumer Behavior Analysis | Course Project

[Mar '22]

- Identified **customer segments** based on the product purchased categories using **K-Means Clustering** and **elbow method**
- Used **Apriori Algorithm Association Analysis** to identify which products a customer will most likely purchase together
- Extracted key topics within product reviews to interpret **customer feedback** using **NLP** and **Latent Dirichlet Allocation**

##### Early Signs of bankruptcies | Finsearch | Finance Club, IIT Bombay

[Ongoing Project]

- Achieved an in-depth understanding of the process of going bankrupt and learned how a **company declares itself bankrupt**
- Studied various models like the **Springate model**, **Zmijewski's model**, and **Z-Score** model for bankruptcy prediction
- Created a report of the case study on the downfall of **Kingfisher airlines** and analyzed **Risk Management failure**

#### POSITIONS OF RESPONSIBILITY

##### Technical Secretary | Hostel 2, IIT Bombay

[Nov '21 - May '22]

- Conducted speaker sessions and workshops and launched technical projects for all **450+** hostel students
- Worked cohesively with the Technical Councilor for organizing major hostel events and maintaining the **Tech Inventory**

##### Pronites Coordinator | Mood Indigo

[May '21 - Mar '22]

- Successfully conceptualized and meticulously organized **Livewire - The Biggest Semi-Professional Indie band competition**
- Proficiently coordinated with the team for the execution of **Mood Indigo Homecoming Concert** with a **10k+** audience

#### TECHNICAL SKILLS

**Programming** C++, Python, R, MATLAB, ~~ETX~~

**Data Science** Pandas, NumPy, Matplotlib, Seaborn, SQL, Scikit-Learn, TensorFlow, Dash, OpenCV, NLTK

#### EXTRACURRICULARS

- Pursuing Udacity courses on **Computer Vision**, **Operating System**, **Algorithms and Reinforcement Learning** [2022]
- Certified **Python Business Analyst** by **Henry Harvin** by completing the course of Business Analytics with python [2022]
- Completed the **Winter In Data Science** Bootcamp conducted by the Analytics Club, IIT Bombay [2021]
- Prepared a PPT on a case of "**Entry of Tesla in India**" for IIT Kharagpur's Indian Case Challenge [2022]
- Participated in **Competencia de Pitcheo** and pitched a startup idea based on Renewable Energy [2021]
- Secured the **first position** at Nehru Science Center Quiz held amongst 256 schools across Maharashtra [2017]
- Awarded Active Student prize for being **second best student** in school in all the extracurriculars activities [2015]