# ABHISHEK ANAND

## ACADEMIC QUALIFICATIONS

| Year | Degree /Board | University /Institution | %/CGPA |
|---|---|---|---|
| 2025* | Post Graduate Diploma in Business Analytics | IIM Calcutta, IIT Kharagpur, ISI Kolkata | - |
| 2021 | B.E. Electrical and Electronics Engineering | BITS Pilani KK Birla Goa Campus | 7.5/10 |
| 2016 | CLASS XII | DAV Model School, Durgapur | 92.17 % |
| 2014 | CLASS X | St. Xavier's School, Durgapur | 93 % |

| KEY SKILLS/TOOLS | Python, Communication, SQL, Statistical Data Analysis, Excel, Dashboarding, Tableau, Predictive Modeling |
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## WORK EXPERIENCE (27 Months )

| Doubtnut | Business Analyst | Gurugram (Feb '21 - May '23) |
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**Descriptive Analytics**
- **Maintained** and **analyzed** key metrics across sales, user engagement, user profiles & retention parameters.
- Used **SQL**, **Excel** and **Python** for above. Prepared live and **interactive dashboards** for the same on Metabase.
- **Tracked** the performances of various product features, **campaigns** & trends pertaining to the Doubtnut app.
- Utilized **apxor** and **SQL** for the above and thus helped with more relevant app **designing** and **user targeting**.

**Diagnostic & Prescriptive Analytics**
- Conducted **Root Cause** and **Ad hoc analyses** related to several crucial **Key Performance Indicators** (KPIs).
- Explained fluctuations, trends & anomalies and helped smoothen Doubtnut's **data driven decision making**.
- **Analyzed** over 25 **A/B experiments**, spanning across Doubtnut's content, interaction & engagement features.
- Used **SQL** and **hypothesis testing** for above and helped the product team take **business & design decisions**.

**Ownership & Business Impact**
- **Led analytics** for Doubtnut's WhatsApp bot, overseeing numbers of onboarding and engagement initiatives.
- Facilitated a growth in WhatsApp's Daily Active Users(**DAU**) by 65,000 & Day1 retention from **18%** to **25%**.
- **Led analytics** for the Shorts feature on the app & helped achieve a **20x boost** in Daily Video Views numbers.
- **Collaborated closely** with product and design teams in **revamping** the Course Details Page & Explore Page.
- Provided **data driven** suggestions for the above and helped achieve a **1.5x improvement** in Buy Now Clicks.

## AWARDS AND ACHIEVEMENTS

**Scholastic Achievements**
- Acquired a spot in the **Top 10 Unstoppable College Champions, IIM Calcutta**, Unstop Talent Awards 2024.
- **99.33%ile** in **quants** in CAT 2022 | Awarded the **best Debator** of DAV Model School, Durgapur 2015-2016.
- Awarded **Times NIE** (Newspaper in Education) **Student of the Year** title 2015, DAV Model School Durgapur.

**Case Competitions**
- **2nd** off 5200+ registrations in **Trilytics 2023, PGDBA** with Word Wide Technology (**WWT**), won cash **25k**.
- **2nd** off 1500+ registrations at **Insight Masters, ISB Hyderabad** at Advaita 2023, won cash prize worth **45k**.
- **2nd** off 627 participants in the **dashboarding** competition E2A, in Nova Exilaro 2024, **XLRI Delhi**, won **12k**.

## ACADEMIC PROJECTS

**Optimal Retail Price Prediction (Regression)**
- Predicted **optimal** product price leveraging **regression** analysis using retail transactions data (**30 features**).
- Implemented **OLS**, **Lasso** and **Ridge** | Handled outliers via **Jackknife** method & multi-collinearity using **VIF**.
- Achieved 29.3% **MAPE** and 0.85 $R^2$ using OLS and improved them by **32%** & **15%** respectively using Lasso.

**Heart Disease Prediction (Classification)**
- Built a **hybrid heart disease classifier** on 4k+ patients' data | Addressed **6:1** class imbalance using **SMOTE**.
- Executed EDA, **Iterative** and mode imputation for missing values, handled outliers using an **Isolation Forest**.
- Leveraged **GridSearchCV** and trained a soft hybrid **KNN + Random Forest + Logistic Regression** classifier.
- Used K-fold **Cross-Validation**, achieved an **AUC** of **0.87**, a positive class **recall** of **0.97** & an **F1** Score of **0.89**.

**Market Risk Modelling (Time Series Analysis)**
- Modelled daily stock price volatility of **NIFTY50** index with **1600+** observations using a **GARCH(1,1)** model.
- Performed **preprocessing**, **ADF** test for stationarity, analysed **ACF**, **PACF** plots of returns square & **residuals**.
- Forecasted exchange rate via **ARIMAX** & interest rate differentials as exogenous, achieving a **MAPE** of 1.26%.

**Portfolio Optimization**
- Categorised **120+** Indian stocks into four different **return-volatility** groups leveraging **DBSCAN Clustering**.
- Allocated **optimal weights** to the selected cluster using **Mean-Variance** method, got a **Sharpe Ratio** of **2.05**.

## ADDITIONAL PROJECTS

**Image Captioning (NLP, CNN)**
- Automated image-captioning by leveraging transfer learning on **ResNet-50** as encoder and **LSTM** as decoder.
- Utilized **nucleus** & **temperature sampling** to build vocabulary with **NLTK** for the training & validation sets.

**Customer Uplift Prediction (Uplift Modelling)**
- Recommended **optimum range** of customers for **maximum profit** on the Crieto Uplift Data(~14M records).
- Statistically asserted **CATE,** treated class **imbalance** with **Random Under Sampler** for majority resampling.
- Experimented with S-Learner, X-Learner & T-Learner as **meta learners** using **XGBoost** as the base classifier.
- Identified **persuadable** customers by predicting **uplift**, achieving a best **AUUC** score of **0.64** with **S-Learner**.

## POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

**Alumni Cell Member**
- Organized **7** alumni connect sessions & a workshop for **200+** participants | Updated PGDBA alumni database.
- Connected with alumni & helped compile interview experiences, supporting batch in placement preparation.

| ELECTIVES : Deep Learning, Healthcare & Supply Chain Analytics | INTERESTS : History, Mythology, Cricket |
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