

RITUJA UTTAM METAR



ACADEMIC QUALIFICATIONS

Year	Degree/Board	University/Institution	%/CGPA
2025*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2023	B.Tech Electrical Engineering (Minor in Data Science and AI)	IIT Dharwad	8.85/10
2019	CLASS XII	Ratanabai Walbai Junior College of Science	90 %
2017	CLASS X	St. Francis Xavier's High School	95.2 %

KEY SKILLS/TOOLS Statistical Data Analysis, Predictive Modeling, Statistical Inference, SQL, R, Python, C++, Excel, Power BI

POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

PGDBA Placement Prep. Coordinator	<ul style="list-style-type: none">Organized and facilitated Prep & KT sessions to assist over 60+ PGDBA students with interview preparationOrchestrated Finals'24; Coordinated transition to digital CV platform; Pioneered & collated prep resources
Student Placement Head (B. Tech)	<ul style="list-style-type: none">Spearheaded Company Management team - 20+ coordinators, Administered the entire recruitment processAssisted in Placement report focused on Analytics & Data Visualization; organized the HR Conclave 2023
Public Relations	<ul style="list-style-type: none">Fostered & managed relations with 20+ companies; effectively overseeing end-to-end recruitment process
Mentorship	<ul style="list-style-type: none">Mentored 6 freshmen as Institute Mentor & 26 sophomores as Department Mentor, promoting academics
Cultural & Tech	<ul style="list-style-type: none">Represented IIT Dharwad in Culinary & Quiz Events - 5th Inter IIT Cultural Meet & 9th Inter IIT Tech Meet

AWARDS AND ACHIEVEMENTS

Scholastic Achievements	<ul style="list-style-type: none">99.70 percentile in MHT CET-19 99.07 percentile in JEE Mains-19 MTSE State Rank 10 NTSE Qualifier3rd in International Abacus Competition Institute Topper Class 1-10 Dr. Homibhabha Silver Medalist
Case Competitions (2023)	<ul style="list-style-type: none">1st in Carbon Trading (IIM A) 2nd in emp. churn Prediction (Masters' Union) 4th in Data Analytics (IIM C)Top 7/1000+ in Data Visualisation & Analytics Case (IIM Ranchi) Top 12/1700+ in Finance Case (IIM A)
Certifications	<ul style="list-style-type: none">Stanford University: Machine Learning by Andrew Ng; Neural Networks and Deep Learning: DeepLearning.AI

WORK EXPERIENCE (1 Month)

ICICI Bank Ltd	Management Trainee	Mumbai (Jun '23 - Aug '23)
Anomaly Detection	<ul style="list-style-type: none">Worked on Anomaly detection using Isolation Forests for pre-approved loan offers; dataset : 6M+ records	

INTERNSHIPS (8 Months)

Altair Engineering	Software Development Intern	Bengaluru (May '22 - Dec '22)
High Performance Computing	<ul style="list-style-type: none">Developed Service Level Agreement (SLA) driven Cloud bursting feature to optimize job efficiency on PBSImplemented cloud-based solutions on Microsoft Azure ensuring timely job completion, adhering to SLAs	

ACADEMIC PROJECTS

Air Traffic Prediction (Time Series)	<ul style="list-style-type: none">Built a model to forecast 12 months of passenger traffic at San Francisco airport based on 16 years of dataChecked stationarity using ADF test; Analysed ACF-PACF plots for AR & MA order; Ljung-box for residualsApplied ARIMA, SARIMA and LSTM models to achieve MAPE of 1.76%, Reducing RMSE by 80% w.r.t. ARIMA
Credit Card Fraud (GraphML & Classification)	<ul style="list-style-type: none">Built Graph-based credit-card fraud detection model with dataset of 200k+ observations and 22 featuresRepresented data as graph-network using networkx; used the Louvain algorithm for community detectionGenerated Graph Embeddings using Node2Vec; applied LR, RF, SVM and DT, recall 0.90 and F1 score 0.73
Product Development (NLP & Gen AI)	<ul style="list-style-type: none">Generated feature-based suggestions using 5K+ web-scraped reviews to enhance product developmentApplied TF-IDF for text vectorization, Word2Vec & LDA for feature extraction, BERT for sentiment analysisUsed BART for review summarization; compared criticality scores from HoQ for product recommendations
News Topic Classification (NLP)	<ul style="list-style-type: none">Developed a classification model to classify 2K news sentences into 4 topics; Utilized Word2Vec embeddingsImplemented NN, bi-RNN & bi-LSTM; fine-tuned RoBERTa model Achieved accuracy of 0.90, F1 score 0.90
Diabetic Retinopathy (CNN)	<ul style="list-style-type: none">Developed a binary classification CNN model using 2.8K+ retina images for identifying diabetic retinopathyExercised data augm.; leveraged transfer learning on VGG19, Xception & ResNet-50 model; acc. 98.12%

ADDITIONAL PROJECTS

Car Price Prediction (Regression)	<ul style="list-style-type: none">Implemented a regression model to predict current Car valuation by leveraging 100K+ records & 12 featuresHandled multicollinearity using VIF; Used Box-Cox transformation and Analysed Residuals using Q-Q plotApplied DT, RF, LGBM and XGBoost after MLR; Achieved R2 to 0.931 and Reduced RMSE by 14.5% to 0.266
Airtel AF Live Project (Classification)	<ul style="list-style-type: none">Developed predictive models using Logistic Regression as a base to identify churn in telecom subscribersManaged datasets of 2M records, addressed problems of class imbalance using SMOTE & Scale_pos_weightImplemented XGBoost, RF, KNN and Adaboost Classifier, achieving up to 89% recall with AUC-ROC of 0.86
Targeted Ads. (Clustering)	<ul style="list-style-type: none">Segmented E-commerce customers using 5L+ invoice data; performed feature engineering and RFM analysisCluster profiling using KMeans, Agglomerative & DBSCAN; Silhouette score 0.92 (3 clusters), DB score 0.29
Gen AI	<ul style="list-style-type: none">Developed ChatBot using Gemma-2B LLM, Fine-tuned with LoRA on 1K Q&A from Databricks; BLEU: 0.65

ELECTIVES : FRM, NLP, Product Analytics, Computational Fin.

INTERESTS : Cooking, Reading