

MAHESH PANDURANG HAMPOLE



ACADEMIC QUALIFICATIONS

Year	Degree /Board	University /Institution	%/CGPA
2024*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2019	B.Tech Civil Engineering	College of Engineering, Pune	6.91/10
2015	CLASS XII	Sri Chaitanya Jr. College	96.3 %
2013	CLASS X	Hutatma Pansare Highschool, Dharmabad	89.64 %

KEY SKILLS/TOOLS Data Visualization, Predictive Modeling, Data Mining, Strategic Thinking, Python, SQL, Power BI, Excel

WORK EXPERIENCE (42 Months)

Tarkashastra Academy		Quantitative Aptitude Faculty	Pune (Mar '22 - May '23)
Roles and Responsibility	■ Strategically designed and executed, a results-driven quantitative aptitude curriculum for 230+ students , resulting in 5.2% enhancement in performance across competitive exams such as CAT, MHCET, SNAP, & others		
Innovative Vastunirman Pvt.Ltd		Project Execution Engineer	Pune (Jun '19 - Nov '21)
Roles and Responsibility	■ Directed teams of 300+ employees to complete 4 high-value (₹100 crore+) industrial construction projects ■ Liaised with cross-functional teams to optimize synergy & ensure structural integrity, safety & improve TAT ■ Mentored & guided a team of 3 engineers & 2 interns in critical project management practices and delivery		
Business Impact	■ Designed and implemented an Excel dashboard to effectively track works progress, allocate manpower and resources Analyzed data to find out gaps in partner management leading to reduction in process time by 6% ■ Drove 12%↑ in productivity and 8%↓ in timeline through strategic management at Cummins India project ■ Reduced costs by ₹15 Lakhs by mapping contractors and suppliers for the Datwyler project in Maharashtra		
ACHIEVEMENTS	■ Recognized as the "Employee of the year 2021" nominated by the SBU Head for exceptional performance		

AWARDS AND ACHIEVEMENTS

Academic	■ Top 1.5 percentile in MHT-CET15 of 0.2M candidates; Recipient of Foundation for Excellence Scholarship'15
Case Competitions	■ Ranked 4th out of 1210+ teams in Zenith 2.0 2023, Business Case Competition organized by IIM Calcutta ■ Ranked 4th out of 400+ teams in Statistella 2024, Data Analytics Case Competition organized by IIT BHU ■ Ranked 8th out of 760+ teams in Ad-War-Tize 5.0'23, Marketing Case Competition organized by IIM Raipur

ACADEMIC PROJECTS

Used Car Price Prediction (Regression)	■ Developed Regression models to predict the price of used cars using 11.8k+ observations and 20 features ■ Performed feature engineering ; imputed missing values with iterative imputer ; validated all assumptions ■ Mitigated multicollinearity with VIF, PCA, Lasso & Ridge ; identified influential points using dfits-statistic ■ Adj. R2 to 0.77 (↑11.5%) ; Analyzed non-linear models (AdaBoost, XGB, RF) and improved Adj. R2 to 0.84
Intermittent Demand Forecasting	■ Classified products in to Intermittent, Smooth, Lumpy & Erratic based on CV2 & ADI with Croston Method ■ Forecasted demand for intermittent series (SBA, ADIDA, MAPA) with MASE of 4.14 , surpassing SES Method
Employee Attrition prediction (Classification)	■ Developed an ANN model for employee attrition; conducted EDA, SMOTE, & GA for hyperparameter tuning ■ Achieved AUC-ROC of 0.81 , outperforming Logistic Regression, SVM, Decision Tree, Random Forest, & XGB ■ Improved acc. by 2.25% & F1 Score by 2.27% on imbalanced data; matched the top model on balanced data
Lung Cancer Detection (Classification)	■ Designed an ensemble CNN model , enhancing diagnosis capabilities & robustness with data augmentation ■ Trained & Integrated EfficientNet-B3, Inception-v3 and ResNet50 using transfer learning for enhancement ■ Achieved 91.25% accuracy , 2.27%↑ over the leading model, with 1.7%↑ in recall and 2.55%↑ in F1 Score

ADDITIONAL PROJECTS

Sales Forecasting (Time Series)	■ Forecasted drug sales leveraging 13 years of historical data, ensuring data stationarity with the ADF test ■ Analyzed ACF & PACF plots to identify order of SARIMA model & Ljung-box test for residual autocorrelation ■ Optimized model selection using AIC-based grid search, achieving 8% MAPE with SARIMA(1,0,2)(1,1,2,12)
Customer Segmentation	■ Clustered 9K credit card users by spending patterns for targeted marketing ; reduced dimensions using PCA ■ Identified optimal K with Elbow plot ; achieved Silhouette (0.4) and Davies-Bouldin (0.8) using K-means
News Classification (NLP)	■ Built models to classify news articles into 4 topics (World, Sports, Business, Science) using 2.5K+ articles ■ Achieved accuracy of 67% with Word2Vec & Neural Network ; 69% with Bidirectional RNN and LSTM ■ Implemented BERT using Hugging Face Roberta base model & achieved superior results (89 % accuracy)

POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

Captain, Baseball, COEP	■ Spearheaded a team of 20 athletes at university & national level sports events, securing a total of 3 medals ■ Increased the number of competing teams by 25% year on year by acting as Baseball Event Head in Zest'18
Coordinator, Drama, COEP	■ Elected as 1/4 Drama Coordinators unanimously by 60 team members Strategized & utilized budget of ₹2L ■ Directed drama of 2019 Led a 3-tier team of 55 and garnered a total audience of 5000+ for 2 stage shows

ELECTIVES : Healthcare Analytics, Supply Chain Analytics, FRM

INTERESTS : Badminton, Cricket