

## ACADEMIC QUALIFICATIONS

Year	Degree/Board	University/Institution	%/CGPA
2025*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2026*	M.Sc. Financial Engineering	Worldquant University, LA	91 %
2019	B.Tech Electrical Engineering	VJTI, Matunga, Mumbai	6.76/10
2015	CLASS XII	Bharat English School, Pune	88 %
2013	CLASS X	M. S. S. Highschool, Pune	94.36 %

**KEY SKILLS/TOOLS** Business Impact Analysis, Power BI, Derivatives, Python, MATLAB, SQL, R, Valuation, Statistical Inference

## WORK EXPERIENCE (36 Months)

PUNE METRO RAIL PROJECT	Section Engineer	Pune (Jul '19 - Jun '22)
Strategic Project Leadership	<ul style="list-style-type: none"> <li>Supervised <b>25+</b> staff in depot construction, achieved <b>100%</b> design , <b>65%</b> financial &amp; <b>90%</b> site completion</li> <li>Managed <b>Prime Minister's</b> visit, <b>National</b> Level <b>CMRS</b> &amp; <b>CFO</b> visit; Oversaw tender amounted to ₹ <b>508 Cr</b></li> <li><b>17%</b> cost ↓ - <b>Cost Engineering</b> &amp; <b>CPM</b>; Managed <b>50+</b> vendors; Planned Inventory using <b>EOQ, RP, SS, &amp; LT</b></li> <li><b>4 Mn+/mos.</b> saved - <b>Forecasting</b> energy trends with <b>Exp. smoothing</b> &amp; <b>Interface Risk</b> with <b>Monte Carlo</b></li> <li><b>99%</b> Defectives ↓ - Led <b>FAT</b> as per <b>IS Code</b>, employed <b>VaR</b> &amp; <b>Hypothesis Testing</b> using quant. risk matrix</li> </ul>	
Financial Modeling & Transit Data Analytics	<ul style="list-style-type: none"> <li>Developed <b>Financial Model</b>, <b>Forecasted</b> project cash flows &amp; computed <b>EIRR, NPV, &amp; Sensitivity analysis</b></li> <li>Devised <b>Traffic Demand Forecasting</b> for metro; <b>Four-Step Model</b> using <b>Primary Data</b> on CUBE software</li> <li>Formulated <b>Linear Regression</b>, Gravity Distribution, <b>Logit Function</b> for mode split to <b>estimate</b> ridership</li> </ul>	
Cost Optimization	<ul style="list-style-type: none"> <li><b>43%</b> Cost ↓ - Managed <b>Global Consulting</b> teams; optimized HVAC; devised <b>ANOVA</b> test for VRF efficiency</li> </ul>	
Award & Recognition	<ul style="list-style-type: none"> <li><b>Best Employee</b> award (1/200); Promoted to <b>SSE &amp; AM</b> for leadership; Received <b>LOR</b> from <b>ACPM &amp; ADRM</b>.</li> </ul>	

## ADDITIONAL PROJECTS

Cars 24 Live Project (Regression)	<ul style="list-style-type: none"> <li>Implemented a regression model to predict current <b>Car valuation</b> by leveraging <b>100K+</b> records &amp; <b>21</b> feat.</li> <li>Handled multicollinearity using <b>VIF</b>; Used <b>Box-Cox</b> transformation and Analysed Residuals using <b>Q-Q plot</b></li> <li>Applied <b>DT, RF, LGBM</b> and <b>XGBoost</b> after <b>MLR</b>; Achieved <b>R<sup>2</sup></b> to <b>0.931</b> and Reduced RMSE by <b>14.5%</b> to <b>0.26</b></li> </ul>
Airtel AF Live Project (Classification)	<ul style="list-style-type: none"> <li>Developed a binary classifier for churn prediction in telecom subscribers using <b>2M</b> records &amp; <b>30+</b> features</li> <li>handled class imbalance using <b>SMOTE</b> &amp; <b>scale_pos_weight</b>; Trained <b>LR, KNN, RF, XGBoost</b> and <b>Adaboost</b></li> <li>Achieved best recall of <b>0.89</b> and ROC-AUC of <b>0.86</b>; Reduced churning from <b>7%</b> to <b>3%</b> by giving target offer</li> </ul>
Pair Trading (Clustering, Regression)	<ul style="list-style-type: none"> <li>Executed <b>market neutral</b> pair trading strategy on <b>Russell 3000</b> for <b>statistical arbitrage</b>; performed <b>PCA</b></li> <li>Evaluated stock pair; <b>DB-SCAN (11 clust)</b>, <b>K-Means</b> (Elbow - <b>4 clust</b>; silhouette score - <b>0.26</b>); plotted <b>t-SNE</b></li> <li>Detected <b>mean-reverting</b> processes (<b>ADF test</b>); Modeled <b>Z score</b> with <b>LR, Polynomial LR</b> (deg. 4), <b>Lasso</b>.</li> <li>Backtested <b>alpha</b> of <b>Lasso</b> &amp; <b>LR Kalman Filter</b>; <b>20.0%</b> &amp; <b>6.37%</b> and <b>Sortino</b> ratios of <b>1.71</b> and <b>5.23</b>, resp.</li> </ul>
News Classification (NLP)	<ul style="list-style-type: none"> <li>Developed a classification model to classify <b>2K</b> news sentences into 4 topics; using <b>Word2Vec</b> embeddings</li> <li>Implemented <b>bi-RNN, bi-LSTM</b>; fine-tuned <b>RoBERTa</b> model &amp; Achieved accuracy of <b>0.90</b>, F1 score: <b>0.90</b></li> </ul>
Gen AI	<ul style="list-style-type: none"> <li>Developed <b>ChatBot</b> using <b>Gemma-2B LLM</b>, Fine-tuned with <b>LoRA</b> on <b>1K Q&amp;A</b> from Databricks; <b>BLEU: 0.6</b></li> </ul>

## ACADEMIC PROJECTS

Demand Forecasting (Time Series)	<ul style="list-style-type: none"> <li>Performed Time Series analysis on <b>6 yrs</b> electrical consump. &amp; prod. data; Assessed stationarity (<b>ADF test</b>)</li> <li>Determined <b>ARMA</b> order examining <b>ACF, PACF</b> plots, with <b>AIC, BIC</b>; Achieved a precision <b>MAPE</b> of <b>1.70%</b></li> <li>Guided energy trading &amp; coal energy prod. decisions (<b>4 cr. profit</b>); with <b>SARIMA, VARMA</b> &amp; <b>LSTM</b> models.</li> </ul>
Diabetic Retinopathy (CNN)	<ul style="list-style-type: none"> <li>Developed a binary classification <b>CNN</b> model for <b>2.8K+</b> Retina images for identifying diabetic retinopathy</li> <li>Exercised data augm.; leveraged transfer learning on <b>VGG19, Xception</b> &amp; <b>ResNet50</b> model; acc. <b>98.12%</b></li> </ul>
Other Projects	<ul style="list-style-type: none"> <li><b>Portfolio Optimization</b> (Markovitz portfolio, SVR) . <b>Movie Recommendation</b> (Collaborative Filtering)</li> <li><b>Disease Prediction</b> (logistic Regression) . <b>MNIST Digit Classifier</b> (RF, DT, NN) . <b>Sales &amp; Inventory Mang.</b></li> </ul>

## AWARDS AND ACHIEVEMENTS

Business Comp.	<ul style="list-style-type: none"> <li><b>Ranked 1<sup>st</sup>/715</b> Tradecraft IIMA - Live trading . <b>Nationally 12<sup>th</sup>/1700+</b> Exchequer - <b>PE Investment, DCF</b></li> </ul>
Data Case Comp.	<ul style="list-style-type: none"> <li><b>Nationally 7<sup>th</sup>/950+</b> Predictive analytics IIM Ranchi . <b>Nationally 4<sup>th</sup> /900+</b> Data Analytics - IIM Calcutta</li> </ul>
Certificates	<ul style="list-style-type: none"> <li>Certificate - <b>Machine Learning</b> - Python &amp; R; . <b>LIC Student of the Year Award</b>; outstanding performance</li> </ul>

## POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

Project Lead, HQ	<ul style="list-style-type: none"> <li>Organized a <b>labor welfare</b> camp, impacting ₹<b>200+ Mn</b>; distributed food to <b>2k+</b> workers during COVID-19</li> </ul>
Organizer TEDxVJTI	<ul style="list-style-type: none"> <li>Spearheaded the <b>first</b> TEDxVJTI event, Led a <b>team</b> of <b>30+</b> coordinators, Speech <b>Curation</b> of <b>10+</b> speakers</li> <li>Onboarded <b>10+ sponsors</b> &amp; raised ₹ <b>12 L+</b>; <b>Streamlined processes</b> for <b>global event</b> with <b>10+ vendors</b>.</li> </ul>
Cultural Secretary, VJTI	<ul style="list-style-type: none"> <li>Led <b>National Level</b> cultural festival <b>Pratibimb</b> at VJTI (footfall -<b>10k</b>); managed <b>team</b> of <b>50+</b>, budget <b>11L+</b></li> <li>Managed <b>20+ events, 25+ sponsors, &amp; 10+ guests</b>, with <b>10+ Vendors</b>, boosting community involvement.</li> </ul>

**ELECTIVES** : Computing Finance, Banking, FRM, Bayesian, NLP **INTERESTS** : Vipassana, Painting, Investing