

# K HEMANTH KUMAR



## ACADEMIC QUALIFICATIONS

Year	Degree /Board	University /Institution	%/CGPA
2025*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2015	B. Tech (Hons.) Civil Engineering	Indian Institute of Technology (IIT), Bhubaneshwar	6.08/10
2010	CLASS XII	Narayana Junior College, Hyderabad	91 %
2008	CLASS X	Andhra Pradesh Residential School (APRS), Kodigenahalli	90.33 %

**KEY SKILLS/TOOLS** Statistical Analysis, Stakeholder Management, Leadership | ML, Python, Pandas, Numpy, R, SQL, Excel

## POSITIONS OF RESPONSIBILITY

Placement Representative, IIM Calcutta	<ul style="list-style-type: none"><li>Conducted Final Placements (2022-24) – achieved a <b>63% improvement</b> in <b>median</b>, <b>51%</b> in mean, and <b>207%</b> in highest CTC   Achieved the <b>highest CTC</b> in the 9 years history of PGDBA (~<b>61% improvement</b>)</li><li>Created a <b>centralized database</b> for <b>first time</b> in the history of PGDBA   Facilitated <b>sponsorship for Trilytics</b></li><li><b>73% PPO</b> conversion rate; onboarded <b>63% more recruiters</b> and an <b>international recruiter</b> after 6 years</li></ul>
Assistant Presiding Officer	<ul style="list-style-type: none"><li>Served as an APO for Huzurabad constituency bye-elections, <b>led 10+ officers</b> for <b>smooth election</b> processes</li><li><b>Managed ~1100 voters</b>, and coordinated logistics between voters, security, and staff, ensuring compliance</li></ul>

## WORK EXPERIENCE (21 Months)

Ministry of Finance, GOI		Inspector, GST & Customs	Hyderabad (Oct '21 - Jul '23)
Impact (Tax Collection)	<ul style="list-style-type: none"><li>■ Detected &amp; recovered ~ ₹170 Cr from a PSU; Audited 30 units, detected ~ ₹250 Cr &amp; recovered ~ ₹210 Cr</li><li>■ Issued Show Cause Notices to the tune of ~ ₹30 Cr, adjudicated and recovered ~ ₹22 Cr of it with interest</li><li>■ Improved tax collection by ~33% for FY 2021-22 by analyzing DG Analytics reports in the Nacharam Range</li></ul>		
Recognition	<ul style="list-style-type: none"><li>■ Only officer among 62 in the Division to receive a perfect 10/10 score in the FY 2022-23 Annual Appraisal</li><li>■ Recognized as one of the top three Inspectors for overall performance during the Induction Program, 2022</li></ul>		
Key Achievements	<ul style="list-style-type: none"><li>■ Assisted NIA in a successful terrorist search &amp; seizure operation   Completed training for Superintendent</li><li>■ Granted the highest number of GST registrations (54 firms) in my Commissionerate during the FY 2022-23</li></ul>		
Initiatives	<ul style="list-style-type: none"><li>■ Acted as the single Point of Contact for all Hyderabad Zone officers during the e-office digitization program</li><li>■ Created monthly visualization plots, summary figures; Liaised with various officials to improve compliance</li><li>■ First in Commissionerate to join the GST Seva Kendra, a new initiative of MoF to effectively assist taxpayers</li></ul>		

## ACADEMIC PROJECTS

Length Of Stay Prediction (LOS) (Regression)	<ul style="list-style-type: none"><li>Built <b>Regression model</b> to <b>predict LOS of patient</b> on dataset having <b>100K+ observations</b> &amp; <b>27 attributes</b></li><li>Addressed <b>Multicollinearity</b> using <b>VIF</b>   Applied <b>OLS &amp; polynomial</b> regression; <b>Lasso</b> for feature selection</li><li>Employed <b>Residual analysis</b> for model <b>validation</b>, <b>outlier</b> detection   Improved <b>R2 (22% ↑)</b> using <b>XGBoost</b></li></ul>
Forecasting IIP (Time Series)	<ul style="list-style-type: none"><li>Forecasted <b>IIP</b> of Primary goods (Minerals, Fuels and electricity) by analyzing last <b>10 years</b> of monthly data</li><li>Checked stationarity (<b>ADF test</b>), <b>ACF</b>, <b>PACF</b> plots for <b>SARIMA</b> order, used grid search to get best model (<b>AIC</b>)</li><li><b>Forecasted</b> with the <b>SARIMA</b> model to get <b>MAPE</b> of <b>2.897%</b> and used <b>Ljung-Box</b> test for <b>residual analysis</b></li></ul>
Extracting Customer Needs Using UGC (NLP)	<ul style="list-style-type: none"><li>Built <b>CNN</b> based text classifier to <b>filter informative sentences</b> from UGC data (<b>Amazon Oral-care reviews</b>)</li><li>Fine-tuned the <b>word2vec (skip-gram)</b> word embeddings   Achieved <b>F1 score</b> of 0.69 and <b>Precision</b> of 0.785</li><li>Used <b>Ward's method</b> to cluster similar sentences, facilitating <b>topic modelling</b> to identify sparse needs</li></ul>
Portfolio Optimization	<ul style="list-style-type: none"><li>Utilized <b>MPT</b> on 5 Indian stocks; Extracted data from Yahoo Finance &amp; generated <b>Efficient Frontier Curve</b></li><li>Optimized the portfolios to achieve a <b>maximum Sharpe Ratio</b> of <b>1.07</b> and a minimum <b>volatility</b> of <b>8.34 %</b></li></ul>

## ADDITIONAL PROJECTS

Pneumonia detection (Computer Vision)	<ul style="list-style-type: none"><li>Built <b>CNN</b> based <b>classifier Model</b> on <b>6K Chest X-ray</b> images to classify into Normal and Pneumonia patients</li><li>Exercised data augmentation, batch norm &amp; <b>early stop</b>; Finetuned <b>VGG16 &amp; ResNet50</b> model max <b>acc. 83%</b></li></ul>
Credit Card Default Prediction (Classification)	<ul style="list-style-type: none"><li>Built <b>classification model</b> for credit card default prediction on <b>30K+</b> historical credit dataset &amp; <b>24</b> features</li><li>Applied Oversampling (<b>SMOTE</b>) for balancing data; used Logistic <b>Regression</b>, <b>Random Forest</b> &amp; <b>XGBoost</b></li><li>Performed <b>hyperparameter tuning</b> and improved <b>F-beta</b> score from <b>.80(LR)</b> to <b>.84</b> &amp; attained <b>AUC</b> of <b>0.87</b></li></ul>
Customer profiling (Clustering)	<ul style="list-style-type: none"><li>Segmented <b>9K+</b> credit card users by spending patterns for targeted marketing; used <b>PCA</b> for cluster profiling</li><li>Used <b>Elbow-plot</b> to find <b>opt K</b>; Achieved <b>Silhouette Score</b> (0.4), <b>Davies Bouldin Index</b> (0.8) with <b>K-Means</b></li></ul>

## AWARDS AND ACHIEVEMENTS

Superintendent Training	<ul style="list-style-type: none"><li>Secured <b>1st place</b> out of 189 in the <b>GST Quiz Competition</b> by National Academy of Customs, Indirect Taxes &amp; Narcotics (NACIN), during the Induction Training for the <b>Promotion of Superintendent</b>, Hyderabad, 2022</li></ul>
Inspector Training	<ul style="list-style-type: none"><li><b>2<sup>nd</sup>/228</b> rank in the <b>Shooting Competition</b> during Induction Training at Telangana State Police Academy, 2022</li></ul>
Competitive Exams	<ul style="list-style-type: none"><li>Secured <b>rank</b> in top <b>0.17 %ile</b> (~30.26 lakh candidates) in the <b>Combined Graduate Level (CGL)</b> Exam, 2017</li><li><b>Top 1%ile</b> in UPSC CSE prelims applicants (~10 L+); qualified for <b>UPSC mains thrice</b> in 2016, 2017 &amp; 2018</li></ul>

**ELECTIVES:** Deep Learning, Healthcare and Supply chain Analytics | **INTERESTS:** Chess, Feeding Stray Animals