

# HIMANSHU SINGH



## ACADEMIC QUALIFICATIONS

Year	Degree /Board	University /Institution	%/CGPA
2025*	Post Graduate Diploma in Business Analytics	IIM Calcutta, IIT Kharagpur, ISI Kolkata	-
2016	B.Tech Electrical Engineering	IIT Roorkee	95 %
2012	CLASS XII	Delhi Public School Vidyut Nagar	88.8 %
2010	CLASS X	Delhi Public School Vidyut Nagar	95 %

**KEY SKILLS/TOOLS** Python, SQL, PyTorch, Scikit-Learn, R Programming, MS Excel, Presentation Skills, Tableau

## WORK EXPERIENCE (26 Months )

Framed Media	Search Engine Optimisation Analyst	Delhi (May '21 - Sep '22)
<b>Roles and Responsibilities</b>	<ul style="list-style-type: none"><li>Employed <b>on-page</b> and <b>off-page SEO techniques</b>; conducted <b>keyword research</b> to increase traffic by <b>70%</b></li><li>Performed <b>competitor analysis</b> and monitored the <b>website's analytics</b> to identify areas for improvement</li><li><b>Collaborated</b> closely with the <b>editorial and development team</b> to ensure streamlined publication process</li></ul>	
<b>Initiatives and Impact</b>	<ul style="list-style-type: none"><li>Conducted <b>Backlink Audit</b> to uncover Negative SEO that improved ranking of <b>500 articles</b> after SEO update</li><li>Designed <b>standard article formats</b> that reduced <b>production time by 20%, costs by 10% &amp; ↑readability</b></li><li><b>Doubled</b> the daily article upload frequency (10→20)   <b>Introduced two</b> new sections "How to's" &amp; 'Gaming'</li></ul>	
<b>Awards</b>	<ul style="list-style-type: none"><li>Awarded the '<b>Most Valuable Employee</b>' prize <b>three times</b>   Involved in <b>hiring</b> and <b>training</b> of new recruits</li></ul>	

## AWARDS AND ACHIEVEMENTS

<b>Achievements</b>	<ul style="list-style-type: none"><li>Secured <b>AIR 1163</b> in <b>IIT JEE</b> out of 0.5 million candidates &amp; <b>98.46 %ile</b> in <b>CAT'22</b> QA section out of 220k</li><li>Awardee of national level merit based <b>NTSE Scholarship</b> offered by NCERT to <b>Top 1000</b> students annually</li><li>Secured <b>1<sup>st</sup> position</b> in Annual <b>Techno-Hobbies Exhibition</b> (IIT Roorkee) for <b>Smart Motion Control</b> proj</li></ul>
<b>Certification</b>	<ul style="list-style-type: none"><li>Completed '<b>Generative AI with Large Language Models</b>' <b>intermediate</b> level certificate on DeepLearning.ai</li></ul>
<b>Competitions</b>	<ul style="list-style-type: none"><li><b>Finalist</b> in <b>IIM Ahmedabad's</b> Exchequer'23   <b>Top 10</b> in <b>IIM Calcutta's</b> IDB Analytics 3.0 out of 940 teams</li></ul>

## ACADEMIC PROJECTS

<b>Mechanism of Action (Classification)</b>	<ul style="list-style-type: none"><li><b>Predicted MoA</b> of Drugs using dataset with 23k+ datapoints &amp; <b>800+</b> features for <b>faster drug development</b></li><li>Performed <b>PCA, Factor Analysis &amp; UMAP</b> for feature engineering   <b>MLSMOTE &amp; MSKF</b> for imbalanced data</li><li>Implemented <b>XGBoost, Random Forest, Logistic Regression &amp; three stage NN</b> achieving <b>Logloss</b> of 0.016</li></ul>
<b>Electricity Price Forecasting (Time Series)</b>	<ul style="list-style-type: none"><li>Forecasted Electricity Price in <b>Day-Ahead</b> market using temperature, input prices as <b>Exogenous Variables</b></li><li>Performed <b>ADF</b> test for stationarity; plotted <b>ACF &amp; PACF</b>; and achieved <b>MAPE</b> of 17.33% for baseline model</li><li>Improved Base Model performance to 14.4% using <b>SARIMAX</b>, 8.9% using <b>LSTM</b>, and 8.1% using <b>Deep RNN</b></li></ul>
<b>Customer Targeting (Uplift Modelling)</b>	<ul style="list-style-type: none"><li><b>Identified customers</b> with a strong propensity to buy dresses if targeted via emails using <b>uplift modelling</b></li><li>Implemented <b>Class Transformation, Two model</b> and <b>Solo Model</b> approaches with <b>RF, LR</b> and <b>LightGBM</b></li><li>Achieved <b>QC</b> score of 0.038   Performed <b>Market Funnel Analysis</b> &amp; recommended list of target customers</li></ul>
<b>Product Development (Sentiment Analysis)</b>	<ul style="list-style-type: none"><li>Developed a <b>New-product development strategy</b> integrating review sentiment analysis with <b>HOQ Matrix</b></li><li>Performed <b>Web Scraping</b>, text <b>tokenisation</b> for data cleaning; Used <b>Vader &amp; BERT</b> for Sentiment Analysis</li><li>Used <b>LDA</b> for <b>topic Modelling</b> and <b>BART</b> for review <b>summarisation</b> to provide concise actionable insights</li></ul>
<b>Price Prediction (Regression)</b>	<ul style="list-style-type: none"><li><b>Predicted product price</b> from retail transactions dataset having 30 features using <b>OLS, Lasso &amp; Ridge</b> regr.</li><li>Detected outliers by <b>Jack-Knife</b>, multi-collinearity by <b>VIF</b>   Obtained 29.3% MAPE by OLS, ↓ to 9.3% by <b>lasso</b></li></ul>

## ADDITIONAL PROJECTS

<b>Spam Detection (LLM Classification)</b>	<ul style="list-style-type: none"><li>Built <b>spam SMS detection system</b> utilising a <b>pre-trained GPT-2</b> LLM integrated with a <b>classification head</b></li><li><b>Fine-tuned</b> base model to improve <b>AUC</b> score from 0.46 to 0.93 &amp; further enhanced it to 0.997 using <b>LORA</b></li></ul>
<b>Movie Rec.Sys.</b>	<ul style="list-style-type: none"><li>Built a <b>collaborative</b> movie rec.sys. with MovieLens100k dataset using <b>memory based</b> strategy with <b>KNN</b></li><li>Used <b>Bias subtraction &amp; bayesian based optuna hyperparameter</b> tuning to improve MSE from 9.72 to 3.25</li></ul>
<b>Landing Page Generation (LLM Agents)</b>	<ul style="list-style-type: none"><li>Generated <b>product description based content</b> for landing page of ecommerce website using <b>LLM Agents</b></li><li>Encoded text using <b>SBERT</b> and performed <b>vector storage</b>, retrieval and query matching using <b>Langchain</b></li><li>Used <b>CrewAI</b> framework to build <b>3 agents</b> for creating <b>taglines, detailed descriptions &amp; brief product list</b></li></ul>
<b>Customer Segmentation</b>	<ul style="list-style-type: none"><li>Performed Bank Customer Segmentation using <b>K-Means</b> on vector representations of 45k+ customers data</li><li>Used <b>Elbow method</b> for no. of clusters &amp; <b>SHAP</b> for feature importance   Obtained <b>Silhouette score</b> of 0.146</li></ul>

## POSITIONS OF RESPONSIBILITY & EXTRA CURRICULARS

<b>PGDBA Magazine Team</b>	<ul style="list-style-type: none"><li>Appointed as the <b>Editor-in-Chief</b> of PGDBA annual AI &amp; Analytics Magazine - <b>AINA 5.0</b> and led a <b>team of 4</b></li><li>Contributed <b>two</b> articles on <b>AutoML</b> and <b>AI &amp; Governance</b>; conducted interviews, ensured <b>timely release</b></li></ul>
<b>Sports</b>	<ul style="list-style-type: none"><li>Secured <b>First Position</b> in Intersection Wars <b>Basketball Competitions</b> '23 having 8 teams at <b>IIM Calcutta</b></li></ul>

**ELECTIVES** : NLP, Finance Risk Mgmt, Econometric Methods

**INTERESTS** : Spirituality, Workout

