DATTARAJ VILAS VAIDYA

DOB 4 October 1997



+91-8668922961M dattarajy21@iitk.ac.in

EDUCATION

Program	Institution	%/CGPA	Year
M Tech in IME	Indian Institute of Technology, Kanpur	9.52 (2 nd sem)	2021-present
B Tech in ME	Indian Institute of Technology, Indore	8.0	2019
XII (HSC Maharashtra)	S.B.E.S. College of Science, Aurangabad	88.31	2015
X (SSC Maharashtra)	Maharashtra Public School, Aurangabad	93.45	2013

INTERNSHIP

Organization: Axtria Ingenious Insights | Role: Analyst | Department: Business Intelligence Management

- ➤ Worked on a sample dataset to implement a variety of SQL concepts including Clauses, Joins, Subqueries, Views, Common Table Expressions, and Ranking.
- > Studied Data warehouse concepts, data warehouse architectures, Fact-dimensions links, Star and Snowflake schemas, and Data Marts.
- Explored Big Data concepts, Apache Hadoop's architecture, HDFS, and MapReduce algorithm, and supporting tools like Hive, Impala, their architecture, and working.
- > Studied RDDs, RDD transformations, RDD actions, Paired RDDs, DataFrames, SparkSQL.
- ➤ Implemented basic ETL operations on a sample dataset using the Pyspark shell of Apache Spark.

PUBLICATIONS

➤ Rohit Kothari, Dattaraj Vaidya, Vinay Shelke. Experimental investigation of thermal performance of nano-enhanced Phase Change Materials for thermal management of electronic components.

[ASME POWER conference 2019]

ACADEMIC PROJECTS

Sentiment Analysis on Twitter Data of UP Election 2022

➤ Collected over 300k tweets using **snscrape** with relevant hashtags for UP Election.

Applied Machine Learning

- ➤ Identified English tweets using **langid** and labelled them using **Vader**.
- ➤ Performed EDA, stop word removal, tokenization, lemmatization, and word-embedding with 300 dimensions after encoding and padding.
- ➤ Trained a 3-layer LSTM model to classify the tweet sentiments into 3 categories.
- ➤ Validated them Vader labels with an accuracy of 86.4%.

Optimal efficient portfolio

Financial Engineering

- ➤ Collected historical data for 21 NIFTY50 firms over a five-year period and assessed correlation, expected return and risk for each.
- Selected 10 companies for our portfolio on the basis of the Correlation matrix, $E(r)/\sigma$ ratio, and diversification.
- Constructed the Portfolio Frontier and Capital Allocation line to determine the proportion of investments in chosen firms corresponding to the maximum Sharpe Ratio.

Market research project on the low market penetration of WhatsApp Pay in India

Marketing Research

- Formulated Management Decision Problems & Market Research problems, Research Questions, and Hypotheses.
- ➤ Designed an online survey based on 4Ps (product, price, place, promotion) using Likert Scale techniques.
- Verified hypotheses using the One Sample t-test in SPSS on the collected dataset.

Murder Rate Analysis

Statistical Modelling for Business Analytics

- Analyzed the effect of executions on murders committed from a dataset with 30 states (entities) and 3 years(periods).
- ➤ Performed pooled regression, regression with time fixed and entity fixed effects to overcome omitted variable bias.
- ➤ Obtained an R2 score of 0.935 for panel data regression with both time and entity fixed effect.

Big Mart sales analysis

Statistical Modelling for Business Analytics

- Analyzed dataset of over 8500 records with 16 features, to find out those which drive the sales predominantly.
- ➤ Used **log** transformation on the dependent variable to overcome **heteroscedasticity**.
- ➤ Built multiple regression models and selected the best one using the principle of **Occam's Razor**.

SELF PROJECTS

Sales data analysis of a company:

(2021)

- 1. Various parameters corresponding to the highest sales are found using data analysis.
- 2. The analysis can be used to formulate a strategy for increasing sales.

COURSE WORK (M Tech)

	Applied Machine Learning	>	Financial Engineering		
\triangleright	Statistical Modelling for Business Analytics	>	Marketing Research		
\triangleright	Probability and Statistics	>	Introduction to computing		
TECHNICAL SKILLS					
>	Python*	>	MS PowerPoint		
>	SQL*	A	Java*		

COURSE CERTIFICATIONS

Tableau

MS Excel

- Machine Learning with Python
- SQL for Data Science
- Introduction to Deep Learning & Neural Networks with Keras
- ➤ Time Series Analysis Stock Market Prediction Python
- ➤ Introduction to Big Data and Hadoop

PowerBI*

➤ SPSS*

➤ Finance & Quantitative Modeling for Analysts (Specialization)

ACHIEVEMENTS AND EXTRACURRICULAR ACTIVITIES

- ➤ AIR 3415 in JEE Advanced [97.72 percentile] (2015)
- ➤ MTSE (Maharashtra Talent Search Exam) Scholar (2012-13)
- ➤ MTSE (Math Talent Search Exam) Scholar (2009,2010,2011)
- ➤ Secured 23rd Rank in G.C.C. District Level Chess Competition, Aurangabad (2009)

POSITIONS OF RESPONSIBILITIES

> Senior Placement Coordinator, IME, IIT Kanpur

(June 2022-Present)

Currently working with a team for coordinating placement of the IME MTech Y21 batch. Guiding Junior members in conducting summer internship drive for Y22 batch.

▶ Junior Placement Coordinator, IME, IIT Kanpur

(July 2021-May 2022)

Worked with a team of 4 members, and achieved 100% summer internship placement for IME MTech Y21 batch.