



Naveen Kanna.N &lt;nvnaveenkannaceo@gmail.com&gt;

## Internship Project Submission Form

2 messages

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Tue, Oct 29, 2024 at 2:34 PM

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## Internship Project Submission Form

Project Submission Form. Project Teams need to submit only one submission per project.

Email \*

nvnaveenkannaceo@gmail.com

Project Team ID \*

PTID-CDS-SEP-24-2087

Project ID \*

PRCP-1025

Project Name \*

**Flight Fare Prediction****Project Start Date (dd/mm/yy) \***

7/10/2024

**Project End Date (dd/mm/yy) \***

21/10/2024

**Project files (only ipython notebook file & related documents) \***

Upload up to 5 files.

Submitted files

 Challenges Faced Report - Naveen Kanna.N.docx Model Comparison Report - Naveen Kanna.N.docx PRCP-1025-FlightPricePrediction - Naveen Kanna.N.ipynb**Project Analysis \***

1.Objective: To develop a predictive model for airline ticket prices using a dataset of flight details.

2.Data Exploration:

Explored data types, distribution, and outliers to gain insights into feature relevance.

Identified key predictors including airline type, departure and arrival locations, duration, stops, and travel time.

3.Feature Engineering:

Processed categorical variables (airline, source, and destination) using encoding techniques.

Extracted date-related features from departure/arrival times for more detailed analysis.

4.Data Preprocessing:

Handled missing values and standardized numerical features.

Partitioned the dataset into training and testing sets.

5.Model Selection:

Implemented multiple models, including Linear Regression, Decision Trees, and Ensemble methods (Random Forest and Gradient Boosting).

Hyperparameter tuning applied for optimal performance.

6.Evaluation Metrics:

Models evaluated using MAE, MSE, and  $R^2$  score to ensure accuracy and reliability.

7.Challenges:

Addressed challenges like data imbalance, multicollinearity, and high cardinality in categorical features.

### Project Video

No files submitted

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Email \*

nvnaveenkannaceo@gmail.com

Project Team ID \*

PTID-CDS-SEP-24-2087

Project ID \*

PRCP-1025

Project Name \*

JohnsHopkinsCovid19 Prediction

Project Start Date (dd/mm/yy) \*

22/10/2024

Project End Date (dd/mm/yy) \*

29/10/2024

Project files (only ipython notebook file & related documents) \*

Upload up to 5 files.

Submitted files



Model Comparison Report - Naveen Kanna.N.docx



PRCP-1023-JohnsHopkinsCovid19 - Naveen Kanna.N.ipynb



Report on Challenges Faced - Naveen Kanna.N.docx

## Project Analysis \*

### 1.Objective:

Build a predictive model for COVID-19 cases and deaths using historical data from Johns Hopkins University.

### 2.Data Exploration:

Analyzed trends in confirmed cases and deaths across different regions.

Assessed data completeness and identified patterns in time series data.

### 3.Feature Engineering:

Created lag features to capture trends in case progression.

Extracted seasonal and temporal factors to enrich predictive power.

### 4.Data Preprocessing:

Handled missing values and normalized data for consistency.

Split data into training and testing sets based on temporal sequence.

### 5.Modeling and Prediction:

Applied multiple time series models, including ARIMA, Prophet, and LSTM.

Compared models based on forecasting accuracy and computational efficiency.

### 6.Evaluation Metrics:

Assessed models using RMSE, MAE, and MAPE to validate forecast accuracy.

### 7.Challenges:

Addressed issues with seasonality, sudden trend shifts, and data sparsity.

### 8.Conclusion:

Recommended the most reliable model for deployment.

Provided actionable insights for public health decision-making based on trends.

## Project Video

No files submitted

## Other Comments

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