

# Tesla & GameStop Stock Analysis

**Title:** Tesla & GameStop Stock Analysis Project

**Subtitle:** Data Science Capstone / Final Project

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**Date / Course Info:** November 2025

# Executive Summary

**Purpose:** Analyze Tesla and GameStop stock prices and revenue.

**Methods:** Data collection, EDA, dashboards, predictive analysis.

## **Key Findings (brief):**

- Tesla: steady growth
- GameStop: highly volatile

# Introduction

## **Project Overview:**

- Explore stock and revenue data of Tesla and GameStop
- Compare trends, visualize insights, and create dashboards

**Datasets Used:** yfinance, Macrotrends, SQL database

## **Objectives:**

- Analyze stock price trends
- Compare revenue performance
- Build interactive dashboards

# Data Collection & Wrangling

**Stock Data:** Extracted via yfinance API

**Revenue Data:** Scrapped from Macrotrends

**Data Cleaning:**

- Removed null values
- Converted revenue strings to numeric
- Checked for consistency between dates and stock data

**Notes / Placeholder:** Add small table showing example of cleaned data

# EDA & Interactive Visual Analytics Methodology

## **Exploratory Data Analysis (EDA):**

- Check head, tail, basic stats, nulls
- Identify trends, outliers, anomalies

## **Planned Visualizations:**

- Line charts for stock prices
- Bar charts for revenue
- Interactive dashboards using Plotly Dash

**Notes / Placeholder:** Include “Chart will go here” boxes

# Predictive Analysis Methodology

**Purpose:** Predict stock trends / classify market behavior

**Model Type:** Classification (e.g., Logistic Regression, Decision Tree)

**Train/Test Split:** 80/20

**Metrics:** Accuracy, confusion matrix, predictions vs actuals

# EDA with Visualization Results

**Tesla Stock Price (Line Chart)** → Placeholder rectangle: “Tesla Stock Chart Here”

**Tesla Revenue (Line Chart)** → Placeholder rectangle: “Tesla Revenue Chart Here”

**GameStop Stock & Revenue (Line Charts)** → Placeholder rectangles

**Notes / Placeholder:** Short caption under each chart: “Shows trend over time”

# EDA with SQL Results

## **Example Queries:**

- Average revenue per year
- Total revenue per stock

**Placeholder Table:** “SQL Query Results Here”

**Notes:** Include short description of query purpose

# Interactive Map with Folium

**Placeholder:** “Interactive Map Placeholder – Folium Map Goes Here”

**Notes:** Could show locations related to revenue data or company stores

# Plotly Dash Dashboard

**Placeholder:** “Interactive Dashboard Screenshot Placeholder”

## Notes:

- Includes Tesla & GameStop stock + revenue charts
- Added interactive elements (hover, zoom, filters)

# Predictive Analysis (Classification) Results

**Placeholder:** "Confusion Matrix / Accuracy Metrics Here"

## Notes:

- Example accuracy: 85%
- Insights: Tesla trend predictable, GameStop more volatile

# Conclusion

## **Key Findings:**

- Tesla: steady growth, reliable revenue
- GameStop: highly volatile, revenue unpredictable

# Creativity & Innovative Insights

Added **interactive elements in dashboards** (hover, zoom, filters)

Highlighted **trends / correlations** between stock price and revenue

Extra visualizations for **clearer insight**

Clean formatting for better readability

Placeholder for charts/tables/images