Netflix Revenue Analysis

Project Overview

This project looks at Netflix's US and Canada (UCAN) streaming revenue over time. The goal is to understand revenue trends and use linear regression to predict future growth. The analysis breaks things down with clear visuals and straightforward models to make sense of the data.

Key Features

- Detailed Exploratory Data Analysis (EDA)
- Data Cleaning and Formatting
- Feature Scaling to improve regression accuracy
- Linear Regression Modeling for trend analysis and forecasting
- Easy-to-read visualizations to highlight important patterns

Dataset

Source: Netflix UCAN revenue data (netflix_revenue.csv)
Description: The dataset includes:

- Dates (monthly or yearly)
- UCAN Streaming Revenue (in millions)

Tools & Technologies

Language: Python
Libraries Used:

- `pandas` for working with data
- `matplotlib` and `seaborn` for creating charts
- `scikit-learn` for scaling and regression modeling

Analysis Summary

1. **Revenue Trends Over Time:**
   Plotted UCAN streaming revenue to see how it has changed.

2. **Scaling and Regression:**
   Used feature scaling to bring the date and revenue values closer together, which made the regression model more accurate.
3. **Visualizations with Regression Line:**
   Added regression lines to scatter plots to better understand the relationship between time and revenue.

Key Findings

- **Consistent Growth:** UCAN streaming revenue has steadily increased over time.
- **Improved Model with Scaling:** Standardizing the data made the regression model more reliable and easier to interpret.
- **Future Predictions:** The linear regression model suggests that revenue will keep growing if current trends continue.

Takeaways

- **Growth Opportunities:** Netflix could use this data to strengthen its presence in the UCAN market by investing in localized content and pricing strategies.
- **Refining Forecasts:** Adding more data, like subscriber numbers or pricing changes, could give a clearer picture of what drives revenue growth.