

Must-Have Data Science Projects for Resume

1. Exploratory Data Analysis (EDA) Project

- Project Idea: Perform detailed EDA on a real-world dataset (e.g., Titanic, House Prices).
- Skills Demonstrated: Data cleaning, visualization, insights generation, feature engineering.

2. Regression Analysis Project

- Project Idea: Predict house prices using multiple regression models.
- Skills Demonstrated: Feature selection, linear and non-linear regression, model evaluation.

3. Classification Project

- Project Idea: Classify handwritten digits (MNIST) or customer churn prediction.
- Skills Demonstrated: Data preprocessing, logistic regression, SVM, neural networks.

4. Time Series Forecasting Project

- Project Idea: Predict stock prices or electricity demand using time series models.
- Skills Demonstrated: Time series decomposition, ARIMA, LSTM, seasonal analysis.

5. Natural Language Processing (NLP) Project

- Project Idea: Text classification, sentiment analysis, or chatbot development.
- Skills Demonstrated: Text processing, word embeddings, LSTM, BERT.

6. Deep Learning Project

- Project Idea: Build an image classification model (CNN) or a transfer learning project (e.g., Food Vision using EfficientNet).
- Skills Demonstrated: Neural networks, CNNs, transfer learning, TensorFlow/Keras.

7. Recommendation System Project

- Project Idea: Create a movie or product recommendation system.
- Skills Demonstrated: Collaborative filtering, content-based filtering, matrix factorization.

8. Clustering Project

- Project Idea: Customer segmentation using K-Means or hierarchical clustering.
- Skills Demonstrated: Unsupervised learning, cluster evaluation, visualization.

9. Anomaly Detection Project

- Project Idea: Detect fraudulent transactions in a financial dataset.
- Skills Demonstrated: Outlier detection, unsupervised learning, autoencoders.

10. Automation with Data Science Project

- Project Idea: Develop an intelligent voice-controlled automation system (like JARVIS).
- Skills Demonstrated: NLP, automation, Python scripting, API integration.