

Key Roles in a Data Science Project:

Data Scientist, Data Engineer, and Analytics Translator

- **Data Scientist**

The **Data Scientist** is responsible for developing and fine-tuning machine learning models to analyze patterns and make predictions. In time series forecasting, this could involve using **tree-based models such as Random Forest and XGBoost, as well as neural networks for deeper pattern recognition**. They explore relationships in the data, engineer meaningful features, and evaluate models using appropriate metrics. Additionally, they conduct backtesting to ensure that their models perform well under real-world conditions. Their primary goal is to **build reliable predictive models that help the client make data-driven decisions**.

- **Data Engineer**

The **Data Engineer** ensures that the team has access to clean, well-structured, and efficiently processed data. Since machine learning models rely on **high-quality input**, the data engineer focuses on **collecting, cleaning, and organizing** data from multiple sources. This includes handling missing values, formatting time series data, and optimizing storage for easy access. They may also build **automated pipelines** to process and update data efficiently. Their role is crucial in **providing a stable and scalable data infrastructure that supports effective model training and analysis**.

- **Analytics Translator**

The **Analytics Translator** serves as the **link between the technical team and the client**, ensuring that the project stays aligned with real-world business needs. While the data scientist and data engineer focus on building models and managing data, the analytics translator ensures that the client understands the insights generated. This involves **identifying key performance indicators (KPIs), translating complex model results into actionable recommendations, and designing clear reports or dashboards**. Their goal is to **ensure that the project delivers meaningful and practical insights that drive informed decision-making**.