# **Analytics & Supply Chain Portfolio Overview**

This portfolio demonstrates applied skills in Data Analytics, Logistics, AI, Blockchain, and Supply Chain/AI integration. Each project not only applies advanced methods (ARIMA, Logistic Regression, Monte Carlo, Digital Twin, Blockchain) but also includes **Comparison & Justification** to explain why a method was chosen over alternatives. **Emphasis:** Data Analysis, Big Data, AI, ML, DL **Tools:** Python (pandas, scikit-learn, statsmodels, OR-Tools), SQL, Excel, Solidity, VS Code, Jupyter **Reference:** See Glossary.md in repository for detailed definitions and comparisons.

### **■** Data Analytics

Code	Project	Methods
DA-01	Customer Churn Prediction	LogReg vs Tree Ensembles
DA-02	A/B Testing	Classical vs Bayesian, CUPED
DA-03	Time Series Forecasting	ARIMA vs ETS vs Prophet
DA-04	Pricing & Product Mix Optimization	LP vs MILP

# **■** Logistics

Code	Project	Methods
LOG-01	KPI Dashboard	SQL + Python + Excel
LOG-02	Inventory Forecasting	EOQ vs JIT
LOG-03	Network Optimization	Monte Carlo vs LP
LOG-04	Tamper-Evident Warehouse	IoT + Blockchain

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Code	Project	Methods
AI-01	Explainable AI for Churn	SHAP/LIME vs LogReg
AI-02	Al Forecasting	LSTM vs ARIMA/Prophet
AI-03	Computer Vision in Logistics	CNNs vs Traditional CV
AI-04	Generative Al Docs	LLMs vs Rule-Based

#### **■** Blockchain

Code	Project	Methods
BLK-01	Food Traceability PoC	Blockchain vs DB
BLK-02	Freight Settlement	Smart Contracts vs EDI

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BI	_K-03	Pharma Serialization	Blockchain vs Paper/DB

#### ■ SCM + AI

Code	Project	Methods
SCM-01	Al Inventory Optimization	ML/RL vs EOQ
SCM-02	Digital Twin	Digital Twin vs Static Models
SCM-03	Blockchain + Twin	Blockchain Feeds vs Twin-only

## ■ Suggested Interview Talking Points

**Data Analytics Depth:** Compare ARIMA, ETS, Prophet (DA-03); Logistic Regression vs Tree Ensembles (DA-01). **Logistics & SCM Expertise:** EOQ vs JIT (LOG-02); Monte Carlo for uncertainty (LOG-03). **AI Application:** LSTM vs ARIMA (AI-02); SHAP explainability (AI-01). **Blockchain Innovation:** Traceability (BLK-01); Smart Contracts (BLK-02); Blockchain + Digital Twin (SCM-03). **Critical Thinking:** Every project includes *Comparison & Justification*, demonstrating not just technical use but business reasoning.