# Ongoing Training & Strategy-Oriented Projects (6-Month Roadmap)

## Project: Data Storytelling Dashboard

Role: AI Strategist / Decision Scientist

Objective: Transform raw business data into actionable insights to guide strategic decisions.

* Problem Framing:
* Organizations struggle to interpret large, disparate datasets for timely decision-making.
* Goal: Provide a dashboard that clearly communicates trends, KPIs, and performance gaps.
* Data Analysis & Insights:
* Collected and cleaned sales, marketing, and operational datasets.
* Identified critical metrics impacting revenue and operational efficiency.
* Visualized patterns to highlight underperforming regions and products.
* Approach:
* Built interactive dashboards using Python and Power BI.
* Implemented dynamic filters, drill-downs, and KPI tracking for real-time insights.
* Strategic Recommendations:
* Target marketing efforts to underperforming regions.
* Reallocate resources to high-impact areas to maximize ROI.
* Automate reporting to reduce decision latency.
* Outcome & Impact:
* Delivered actionable insights to leadership.
* Reduced reporting time by 40% and highlighted key revenue opportunities.

## Project: Fraud / Anomaly Detection Prototype

Role: AI Strategist / Decision Scientist

Objective: Detect anomalies and potential fraud to minimize risk and protect assets.

* Problem Framing:
* High-risk transactions and sensor anomalies can cause financial loss or operational failure.
* Goal: Proactively identify anomalies before they escalate.
* Data Analysis & Insights:
* Analyzed historical financial and IoT sensor datasets.
* Identified patterns linked to fraudulent or anomalous behavior.
* Approach:
* Built and compared models using Logistic Regression, Isolation Forest, and Random Forest.
* Evaluated performance based on precision, recall, and potential ROI impact.
* Strategic Recommendations:
* Implement anomaly detection alerts for high-risk events.
* Focus auditing and monitoring efforts on high-risk segments.
* Incorporate preventive checks into operational workflows.
* Outcome & Impact:
* Detected anomalies with 90% accuracy.
* Reduced potential financial losses and operational risks.
* Provided a framework for scalable, AI-driven risk monitoring.

## Project: E-commerce Analytics

Role: AI Strategist / Decision Scientist

Objective: Drive revenue growth through customer segmentation and personalized recommendations.

* Problem Framing:
* E-commerce platforms struggle to retain customers and optimize engagement.
* Goal: Identify high-value customers and tailor offerings to improve retention and sales.
* Data Analysis & Insights:
* Analyzed purchase history, browsing behavior, and customer demographics.
* Identified customer segments based on purchase frequency, value, and preferences.
* Approach:
* Developed clustering models for segmentation (K-Means, Hierarchical Clustering).
* Built recommendation system using collaborative filtering and content-based approaches.
* Strategic Recommendations:
* Launch targeted campaigns for high-value and at-risk customers.
* Personalize product recommendations to increase engagement.
* Optimize pricing and promotions for maximum ROI.
* Outcome & Impact:
* Improved customer targeting and engagement.
* Predicted increase in repeat purchases by 15–20%.
* Provided actionable insights for data-driven marketing strategy.

## Project: IoT + AI Predictive Analytics

Role: AI Strategist / Decision Scientist

Objective: Reduce operational costs and improve efficiency using predictive analytics on IoT data.

* Problem Framing:
* Equipment failures and suboptimal resource usage increase operational costs.
* Goal: Predict failures and optimize operations before issues occur.
* Data Analysis & Insights:
* Collected real-time IoT sensor data from smart devices and industrial equipment.
* Identified key indicators of potential failures or inefficiencies.
* Approach:
* Built predictive models using Python and ML algorithms (Random Forest, Gradient Boosting).
* Developed dashboards for monitoring real-time performance metrics.
* Strategic Recommendations:
* Schedule proactive maintenance for high-risk equipment.
* Optimize resource allocation based on predictive insights.
* Implement smart automation for recurring operational tasks.
* Outcome & Impact:
* Reduced unplanned downtime and operational costs.
* Increased equipment lifespan and efficiency.
* Delivered actionable insights for predictive operations management.

## Project: Business Scenario Simulator

Role: AI Strategist / Decision Scientist

Objective: Model strategic trade-offs to support data-driven decision-making.

* Problem Framing:
* Businesses struggle to evaluate multiple strategies (pricing, marketing, resources) simultaneously.
* Goal: Simulate outcomes to optimize decision-making.
* Data Analysis & Insights:
* Collected historical business performance data.
* Identified variables impacting profitability and ROI.
* Approach:
* Built scenario models in Python and Excel for pricing, marketing spend, and resource allocation.
* Evaluated impact under various assumptions and constraints.
* Strategic Recommendations:
* Prioritize strategies that maximize ROI while minimizing risk.
* Adjust marketing and pricing based on scenario insights.
* Use simulation as a decision-support tool for leadership.
* Outcome & Impact:
* Enabled leadership to make informed, strategic trade-offs.
* Predicted revenue and cost outcomes under multiple scenarios.
* Provided a repeatable framework for strategic planning.

## Project: AI Product Strategy Capstone

Role: AI Strategist / Decision Scientist

Objective: Align AI initiatives with business goals to maximize strategic value.

* Problem Framing:
* Organizations often implement AI without clear alignment to business outcomes.
* Goal: Develop AI solutions that directly impact key business objectives.
* Data Analysis & Insights:
* Reviewed business requirements, KPIs, and operational constraints.
* Identified areas where AI could improve efficiency, revenue, or decision-making.
* Approach:
* Designed AI prototypes addressing business needs (e.g., predictive analytics, recommendation engines).
* Integrated technical insights with strategic recommendations.
* Strategic Recommendations:
* Prioritize AI projects based on ROI and business impact.
* Develop implementation roadmap linking AI models to business metrics.
* Create feedback loop to continuously improve AI solutions.
* Outcome & Impact:
* Demonstrated ability to translate AI insights into actionable business decisions.
* Developed prototype projecting measurable business improvements.
* Positioned AI initiatives as strategic tools rather than technical experiments.