# **Capstone Projects**

# **Course Content**

### **Capstone 1 - Banking and Financial Services**

- Build an Al-powered credit risk prediction system
- Integrate customer segmentation with fraud detection using transaction data
- Deploy an explainable ML model for regulatory reporting
- Design dashboards for loan portfolio monitoring and risk visualization

# Capstone 2 - Retail and CPG

- Develop a personalized product recommendation engine
- Optimize pricing and promotion strategies using demand forecasting
- Implement a generative AI-based marketing campaign generator
- Design an end-to-end data pipeline for customer sentiment analysis

#### **Capstone 3 - Healthcare and Life Sciences**

- Create a predictive model for patient readmission risk
- Integrate clinical text data with imaging data for disease classification
- Build an automated generative AI chatbot for patient engagement
- Ensure compliance with data privacy and healthcare regulatory standards

### **Capstone 4 - Manufacturing**

- Build a predictive maintenance system using IoT sensor data
- Optimize production quality through computer vision defect detection
- Develop a supply chain demand forecasting model
- Integrate human-in-the-loop feedback for root cause analysis and continuous improvement