1. Predictive Maintenance Model for Industrial Equipment (Python)
   * Implemented machine learning models to predict equipment failures using data from sensors and historical maintenance logs
   * Created a web application to allow technicians to view the model predictions and schedule maintenance accordingly
   * Collaborated with an industrial engineering team to integrate the model into their equipment maintenance process
   * Skills: Python, scikit-learn, web development, data visualization, machine learning, statistics
2. Customer Segmentation for Retail Company (R)
   * Conducted exploratory data analysis on customer purchasing patterns using R
   * Applied unsupervised learning techniques such as k-means clustering and hierarchical clustering to segment customers based on their behavior
   * Developed a dashboard using Shiny to visualize the segments and provide insights to the business team
   * Worked closely with the marketing and sales teams to help them target their campaigns to specific customer segments
   * Skills: R, data analysis, unsupervised learning, data visualization, communication
3. Image Recognition System for Autonomous Vehicles (Python)
   * Built a convolutional neural network to identify objects in images captured by a camera on an autonomous vehicle
   * Optimized the model using techniques such as data augmentation and transfer learning
   * Integrated the model into the vehicle's software system to enable real-time object recognition and decision-making
   * Worked closely with the robotics and software engineering teams to ensure the model met the system's performance requirements
   * Skills: Python, deep learning, computer vision, data preprocessing, software integration
4. Fraud Detection System for Financial Services Company (Python)
   * Developed a machine learning model to identify fraudulent transactions in real time
   * Incorporated data from multiple sources, including transaction logs, customer behavior patterns, and external databases
   * Built an API to allow the model to be easily integrated into the company's existing transaction processing system
   * Collaborated with the compliance team to ensure the model met regulatory requirements for fraud detection
   * Skills: Python, machine learning, data preprocessing, API development, financial services
5. Natural Language Processing System for Healthcare Company (Python)
   * Developed a system to extract medical concepts and entities from unstructured medical text using natural language processing techniques
   * Trained a named entity recognition model using a combination of rule-based and machine learning approaches
   * Integrated the model into the company's electronic health record system to improve data quality and patient outcomes
   * Worked with medical professionals to refine the system's accuracy and performance
   * Skills: Python, natural language processing, machine learning, healthcare, software integration
6. Time Series Forecasting Model for Energy Company (R)
   * Built a forecasting model to predict energy demand using historical time series data
   * Applied techniques such as seasonal decomposition, autocorrelation analysis, and ARIMA modeling to identify patterns in the data
   * Developed a dashboard using Shiny to visualize the forecasts and provide insights to the energy trading team
   * Collaborated with the engineering team to ensure the model was scalable and could handle real-time data
   * Skills: R, time series analysis, forecasting, data visualization, software engineering
7. Recommendation System for E-commerce Company (Python)
   * Developed a recommendation system to suggest products to customers based on their browsing and purchasing history
   * Used collaborative filtering and content-based filtering techniques to generate personalized recommendations
   * Built a web application to display the recommendations and allow customers to provide feedback on their preferences
   * Worked closely with the product