



Project 4 Proposal - Data Detectives

4/11/24

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Overview

Team AEJJ is seeking to discover relationships between U.S. Gross Domestic Product (GDP) and overall economic health. Can machine learning predict a recession, with better than 75% accuracy, by analyzing historical GDP data?

Background

The generally accepted definition of a recession in the U.S., [according to Forbes](#), is when GDP shrinks in two consecutive quarters. The National Bureau of Economic Research traditionally follows a more vague definition:

"A recession involves a significant decline in economic activity that is spread across the economy and lasts more than a few months."

[Business Cycle Dating](#)

While GDP results typically define recession conditions, we want to know if ML can detect trends in quarterly results and predict a recession ahead of time.

Data Source

GDP data (1929-2023)

Source: [Bureau of Economic Analysis \(U.S. Dept. of Commerce\)](#)