

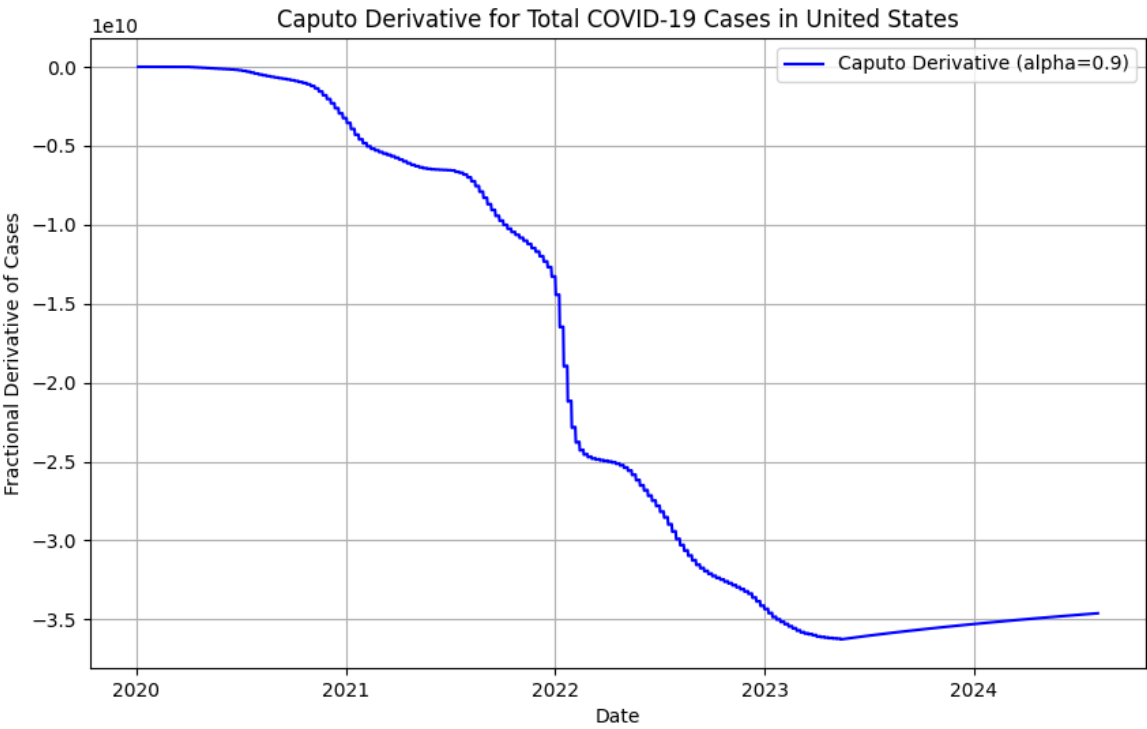
COVID-19 in United States: Caputo Derivative Analysis

This report analyzes the COVID-19 cases in the United States using a Caputo fractional derivative model. The analysis includes total cases, vaccinations, cases by gender, and age group, all modeled using fractional derivatives to consider the memory effects in the system.

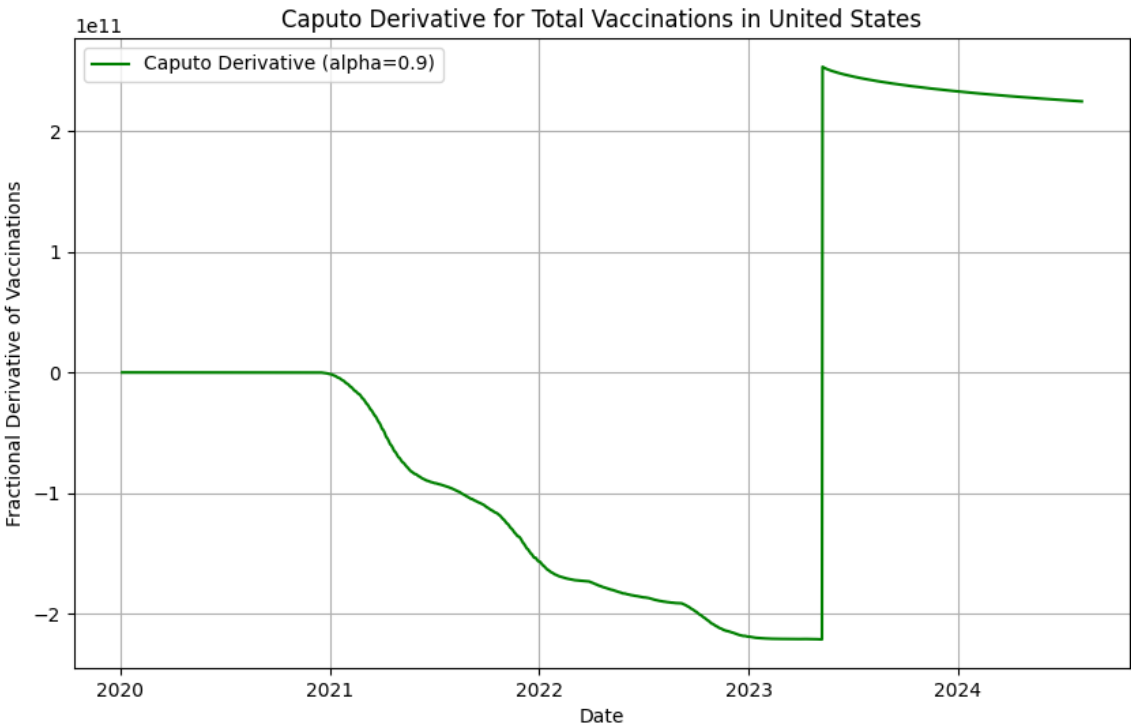
1. Caputo Derivative Data Analysis

The following figures represent the Caputo derivative analysis of COVID-19 data in the United States, including total cases, vaccinations, cases by gender, and age group.

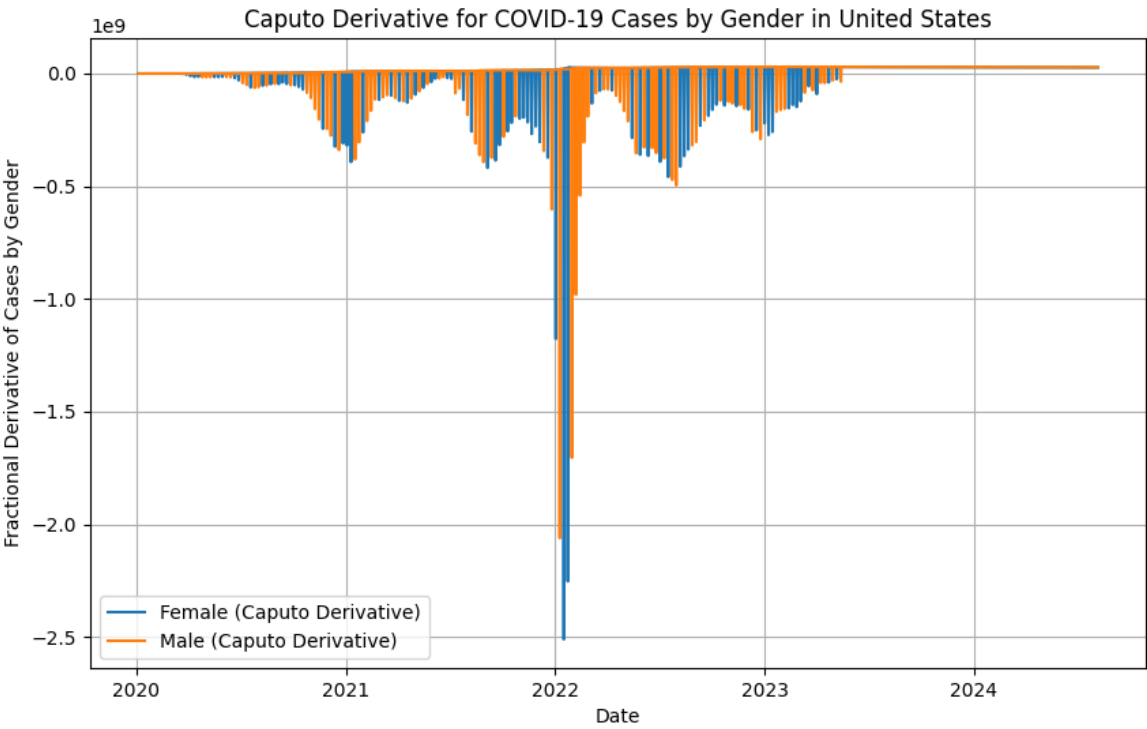
Caputo Derivative for Total COVID-19 Cases



Caputo Derivative for Total Vaccinations



Caputo Derivative for COVID-19 Cases by Gender



Caputo Derivative for COVID-19 Cases by Age Group

