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**Global Terrorism Analysis and Prediction of Causality**

A CSCI467s Project Report

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***Abstract* - Global terrorism has been a major concern for governments and individuals around the world for several decades. The rise of terrorist activities has led to severe socio-economic and political consequences, making it crucial to study and analyze terrorism-related data to prevent and mitigate future attacks. This paper explores the Global Terrorism Database (GTD) and analyzes its data on terrorist attacks from 1970 to 2017. Using Power BI, we visualize the terrorism trends according to location and predict the number of casualties caused by these attacks. The study aims to provide insights into the patterns and trends of terrorist activities over time.**

## INTRODUCTION

Terrorism has become a global phenomenon, with many countries grappling with the threat of terrorism on their soil. The problem of terrorism has been persistent and alarming for several decades, as it has resulted in numerous casualties and significant damage to property and infrastructure. Over the years, there have been several initiatives to counter terrorism, such as intelligence gathering, law enforcement, and military operations. To effectively combat terrorism, it is important to have a clear understanding of its nature, trends, and patterns. The Global Terrorism Database (GTD) is an open-source database created in National Consortium for the Study of Terrorism and Responses to Terrorism—better known as START, it contains information on terrorist attacks worldwide, from 1970 through 2022. The GTD is an invaluable resource for researchers, policymakers, and practitioners who seek to analyze and understand the phenomenon of terrorism.

This paper will use the GTD to analyze and visualize the data on terrorism around the world, with a focus on the location of terrorist attacks and predicting the number of casualties. The use of Power BI will facilitate the visualization of the data and enable a more in-depth analysis of the trends and patterns of terrorism. Moreover, prediction of causalities will be made using Machine Learning algorithms. This paper will contribute to the existing body of knowledge on terrorism and help policymakers and practitioners develop effective strategies to combat this global threat.

## Literature Review