SP-2-DataMining-AI

Team Red

Crime Mining

Overview

While the United States is one of the most peaceful and hospitable countries on the planet, crime remains one of the main topics of national discourse today. Politicians and elected officials from all parties point to crime as a national boogeyman, a menacing force to be defeated with a wide range of policy proposals. However, attaining and analyzing information on crime is not as straightforward as some may think.

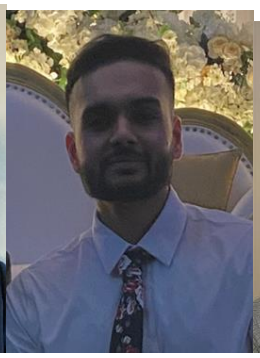
In this project, we will create a web application that mines crime data from databases and visualize the data to predict broad crime trends. We will attempt to draw conclusions about the effects of crime in the United States and identify predictive characteristics of crime and construct profiles of individuals and grouped most predisposed to victimization by different types of crime.

Project Team

Roles	Name	Major Responsibilities	Contact
Project Owner	Peter McFarlane	Project management, application development and testing	pmcfarl6@students.kennesaw.edu 770-313-4931
Developer	Dev Malani	Building and designing the application	dmalani@students.kennesaw.edu 678-579-4093
Technical Writer and Developer	Manav Desai	Handle documentation of the application	mdesai10@students.kennesaw.edu 551-247-7998
Developer	Duc Ho	Building and designing the application	dho7@students.kennesaw.edu 470-918-8389
Advisor / Instructor	Sharon Perry	Facilitate project progress; advise on project planning and management.	sperry46@kennesaw.edu 770-329-3895


Dev Malani


Peter McFarlane


Manav Desai


Duc Ho

Project Website

placeholderurl.com

Final Deliverables

The project is expected to be a simple web application developed with Django with web form features for user convenience. The main purpose of the web application is to perform data mining techniques on data found within the Nation Crime Victimization Survey (NCVS) and visualize the data on a web page.

The data collected with the web application will be saved on a database server and later processed into a data frame, normalized, and potentially vectorized in a test case so that it can fit into a simple machine learning model such as Linear Regression, Supported Vector, etc. We will use Python and its various libraries to perform these functions on the data and Django as the web framework.

The goal of the project is to be able to convert data from a freely available dataset into data frames that will fit into most machine learning models.

Milestone Events

1) Friday, February 24th, 2023
    a. Design / layout of website completed.
    b. Establish what data to seek from the dataset and the techniques necessary to mine and analyze it.
2) Friday, March 17th, 2023
    a. Working prototype of the web application.
    b. Successful demonstration of data mining techniques on the data.
    c. Rough draft of website established.
3) Friday, April 14th, 2023
    a. Completed application capable of visualizing complex data across many variables.
    b. Completed final report.

Meeting Schedule Date/Time

Tuesdays and Fridays from 1 – 1:30 PM.

Collaboration and Communication Plan

We will use Microsoft Teams as our central method of communication. We will host our meetings on Teams every Tuesday and Friday at 1 PM. The Project Owner, Peter McFarlane, will take notes of each meeting and report to the Project Advisor weekly or as needed.

Project Schedule and Task Planning

The Gantt Chart is included in a separate Excel file so as to avoid formatting issues in this document.

Version Control Plan

Utilize GitHub as our main version control to update, create, and/or design the application. The developers, owner, and technical writer will create a GitHub account to add or update any customizations that are needed in the application, write documentations, and/or provide any designs for the application.

Signed by

Peter McFarlane (Project Owner) on 2/3/2023
Peter McFarlane

Duc Ho on 2/3/2023
Duc Ho

Manav Desai on 2/3/2023
Manav Desai

Dev Malani on 2/3/2023
Dev Malani