

Project Proposal: Tallahassee Crime Map

Munawar Ali, Çağatay Ayhan, Ece Karaçam, Abdullah Malik, and Mao Nishino

March 13, 2024

1 Project Summary

In this project, we aim to analyze geographical crime data in Tallahassee, FL, collected from Tallahassee Police Statistics. Specifically, we will conduct statistical and spatial analyses to identify crime patterns and trends. A key feature of our approach is the utilization of the pix2pix generative model, which allows for the prediction of crime heat maps from both existing and hypothetical geographical maps. This enables urban planners to input their future planning designs into our model to identify potential crime hotspots in advance. Additionally, we plan to develop a web application to visualize the data, providing accessible insights to the public.

2 Objectives

- Analyze crime data to identify patterns and trends
- Create a heatmap of crime in Tallahassee using `pix2pix`
- Develop a web application to visualize the data

3 Dataset

The dataset is collected from Tallahassee Police Statistics, which includes geographical information of police reports in Tallahassee. The dataset includes the following columns:

- The time and date of the crime
- The location of the crime
- Report number
- The type of the report
- The geographical coordinates of the crime

4 Stakeholders

- Tallahassee Police Department
- Tallahassee residents
- Local businesses

5 KPIs

- Crime rate by location as predicted by the heatmap
- Accuracy of the heatmap
- User experience with the web application
- Legal and ethical complicity

Comments: I think we should remove the last two bullets since a KPI has to be quantifiable and measurable. If there is a specific metric we can use for UX, we can replace that with bullet 3 above, but I'm not sure if there is a single metric or a collection of metrics we can use to quantify bullet 4 above. – Abdullah