

CS Field Session

Chirp Multimedia



Computer Vision - GIS Data Collection

ABOUT Chirp

Chirp Multimedia is a smart city development company founded in Golden Colorado through the Mines Entrepreneurship & Innovation incubator. Chirp's value comes from our two silos of business, our connectivity to digital screens & vehicle mounted modular sensing units. Both of which are managed by our customer facing portal and back end. The connectivity to screens gives communities the power to publicly share information with their citizens. Access to this network of screens will also be available to the public for communicating. Additionally, while the screens are operating, an array of modular sensor units will deploy on city vehicles or stationary sites to collect data for the use of the city. Examples include GIS data, Computerized infrastructure assessment, and license plate recognition. This data will be provided to the city to aid in current affairs and help make data driven decisions for future community development. All the information from within your community will be available on the Chirp web

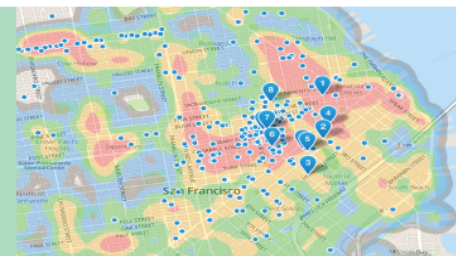
The Project: At Chirp we are looking to revolutionize city data collection capabilities. Currently, the capabilities are the essential city and product needs of LPR and basic population density demographics. The goal for this project is to create auxiliary GIS data collection capabilities on the edge using edge TPU dev kits that can serve as additional value drivers for product adoption. Areas of interest include street condition assessment, signage/markings identification, street lighting inventory, vehicle registration sticker identification, and more. As a team you will have autonomy to choose what functionality you want to develop and port to our AWS database. When the data is ported you will be tasked to demonstrate the potential of the data analytically through techniques learned in course work and the data mapping tools we have available.



Build computer vision capabilities using any commercially viable resources.



Port the edge computed CV text data to the AWS database



Analyze collected GIS data to demonstrate value

Internships

Upon completion of CS Summer Field Session, Chirp is open to discuss internship opportunities.

Work Site

Meetings for this project will be held at 1600 Jackson St on campus or utilize other university facilities. Remote or university facilities for working in between meetings is acceptable.

Resources

CV & AWS database advisors will be available for periodic meetings/aid. All hardware needs will be funded. (Recommendations will be available)

Skills

Computer Vision - AWS Database - SQL - Machine Learning - Cloud Architecture - Data Analytics

Opportunity

Gain invaluable experience in start-up culture product ideation, develop commercially viable tools from concept to market, and future considerations for longterm employment in an innovative company.

Guidelines

All tech developed has to be viable for commercial deployment without license requirements. The development done in this class will be owned by Chirp but will be made available for non-compete licensing.

