



# CHALLENGE #51

## UCT-DFS-02

### FData Fusion for Safer Streets

Meet the expectations of this US Node through the technology challenge described below



## GOALS

We have developed a 2-kilometer urban corridor in downtown Chattanooga that consists of 10 signalized intersections. Each intersection is equipped with IoT devices (camera, LiDAR, air quality, and audio), wireless communication technologies (Wi-Fi, DSRC, 5G, and LoraWAN), and edge computers. Our researchers have developed detection, tracking, near-miss and time-until-collision algorithms to monitor and track pedestrian movement within this corridor in order to improve public safety using data from cameras. To overcome camera limitations (weather/ light dependencies and privacy issues), LiDAR sensors were added to the corridor. The goal of this challenge is to fuse data from cameras and LiDAR to improve the performance of the near-miss and time-until-collision algorithms and generate key insights about high-risk areas.

## DETAILS

Fuse data from cameras and LiDAR with the goal of improving algorithm performance in real time.

## SKILLS REQUIRED

Machine Learning and Python