SE/EE/CPRE 491
Project Title: Economic Home Security System
Group No: 42
SD-MAY20- Group 42

Weekly Report 1

TEAM MEMBERS:
Uma Abu
Andrew Tran
Sohum Sawant
Kamini
Merin Mundt
Lucas Jedlicka - Project Lead

Weekly Summary: Collaborated to work on the overall design of the project. We met with our adviser a couple of times, once as a group and the second time, only one member met with him. We have also come up with tasks for individuals to complete before our next meeting time. These tasks involve learning Python and researching libraries and frameworks we will be using for the project.

Past Week Accomplishment: We meet with our client/adviser and ironed out requirements. Lucas independently met with Goce to discuss an ETG item request. The personal computer's hardware intended for team use doesn't meet the minimum CUDA Compute Capability required for TensorFlow. Two solutions were proposed: acquire new GPU hardware for that computer, or request a whole new machine with appropriate GPU hardware. ETG's expertise will be requested to decide on a solution.

Pending Issues: We are trying to figure out the processing aspects of things and we are in the process of acquiring a server capable of handling processing of all the streams.

Individual Contributions:

Name	Contribution	Hrs this week	Total hrs
Uma Abu	**I did some work around the frontend streaming part of the application. I was able to make and host a web application that accesses the web camera of the device to stream videos**	**3**	**3**
Lucas Jedlicka	**Researched the hardware requirements of the server hosting**	**3**	**3**

	the application. For GPU accelerated RCNN it appears CUDA Compute 3.5 or greater is required. Simultaneous transcoding of multiple streams may require more RAM, but a prototype will be required to find our exact needs.		
Sohum Sawant	**Did research on different streaming protocols and authentication tokens. Was able to choose RTSP as the correct streaming protocol.**	**3**	**3**
Merin Mundt	**Researched different ways we can design the UI to have multiple streams showing at once and also did some research surrounding the what frontend framework to use.**	**3**	**3**
Kamini Saldanha	**Researched how REST API's work in Python with Django framework. This included reading articles, blogs and watching youtube tutorials.**	**2**	**2**
Andrew Tran	**Viewed tutorials and examples on REST APIs using Python and the Django framework. I also found a wireless IP camera from ETG.**	**3**	**3**

Plans for the upcoming week:
We plan to acquire the server for processing and figure out the libraries we are going to use.