# Activity Viz
Technical Design Document

Introduction

The data collected by Microsoft Kinect can be useful for the gesture and ASL researchers, but they do not have these data showed on a friendly way instead of raw data.

The Activity Viz project uses an API to collect the raw data, video and sound and then organize these data outputs on a more visual way using graphics, temporal representation of the data, tagging system, representation of the Cartesian coordinates on a way that approximate with the human body and other types of tools that may make easier to visualize data extracted from Kinect. There is also the syncing of the raw data with the video and audio extracted from the device, providing not just one aspect for analysis, but three, since the video it's not just about the motion, but the environment too.

The goal is to facilitate the data analysis on gesture and ASL research.

Technical Structure
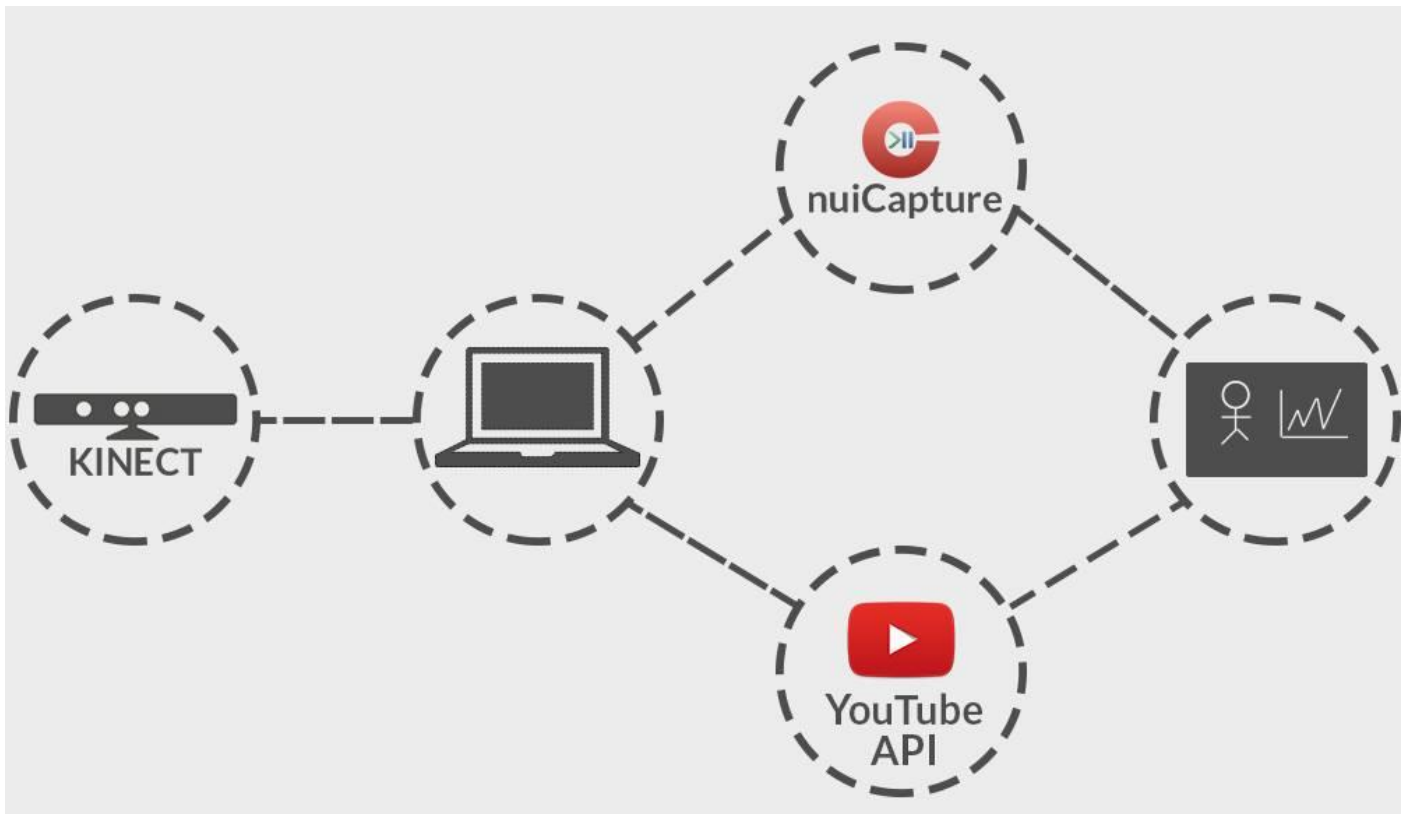
Functional Requirements

Import data from the raw Cartesian coordinate form and save on the database.

Relate the Cartesian coordinate data with the video and audio of the experiment.

Allow the user to tag data and analyze with some designed graphics the system produces.

Show left-hand and right-hand representation of the data, allowing ASL researchers to be more effective on their analysis.

Use YouTube API to upload the videos.

Non-functional Requirements

Security: Do not show anything except HTML on the font-code view

Performance: The application should take less than 30 seconds to show the data on each analysis

Database Schema Diagram