Final Proposal

# Introduction

In our researches, we are troubled with tedious, repetitive work. This project can use several toolboxes to finish huge repetitive work. In this project, I choose the broom county and surrounding counties as a study case. The counter line is very useful in the Map industry. It can help people acquire the knowledge the terrain and terrain change. In this project, I will generate the counter line of my study case, others can use these toolboxes to generate the counter line of place they want to know.

# Methods

There are several methods I’m going to use in my project.

## Batch-Verarbeitung the Polygon type shapefile. (Toolbox)

I will use the New York state shapefile which includes every county in the attribute table to generate the shapefile of my study area. This toolbox is useful to deal with the tedious, repetitive work. And this work can extract the geometry of every row in the attribute table and save it to a separate shapefile.

## Mosaic the DEM (Toolbox)

After downloading the DEM data, I will use the toolbox to mosaic these DEM data and extract the raster data by the mask of my study area. This tool is used to mosaic multiple raster data and clip it by the shapefile you choose.

## Generating the contour line(Toolbox)

With the help of spatial analysis extension product in ArcPy, the contour line of the study area will be generated.

## Export the MXD to PDF(Toolbox)

The toolbox can export the MXD file to PDF and it can deal with multiple MXD files. This tool is used to export the counter line data to PDF and display it.

# Expected Results

The broom county and surrounding counties’ DEM and counter lines will be generated. And they can be used to do some other interesting researches.