## Project 4

Project 4: Image segmentation using U-Net network,





Chicago - reference



Kitsap County, WA



Kitsap County, WA - Reference



Vienna



Vienna - Reference

## Project 4

## Project 4: Image segmentation using U-Net network:

- Description: Develop an algorithm that automatically convert image to black and white, where black represent background and white represent buildings,
- Network: U-NET based model,
- Tensorflow tutorial: https://www.tensorflow.org/ tutorials/images/segmentation
- UNET Implementation in Tensorflow tutorial: https://www.tensorflow.org/tutorials/ generative/pix2pix
- Image database: Aerial Image https://project.inria.fr/aerialimagelabeling/

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Project 4: Image segmentation using U-Net network:

- task 1: Adjust each type of neural network last layer and training function to the new database.
- task 2: Check the influence of neural networks layers depth on segmentation results: increase all layers depth 2 times and decrease all layers depth 2 times.
- task 4: Compare the results of image segmentation. Check the results on images outside of databases.