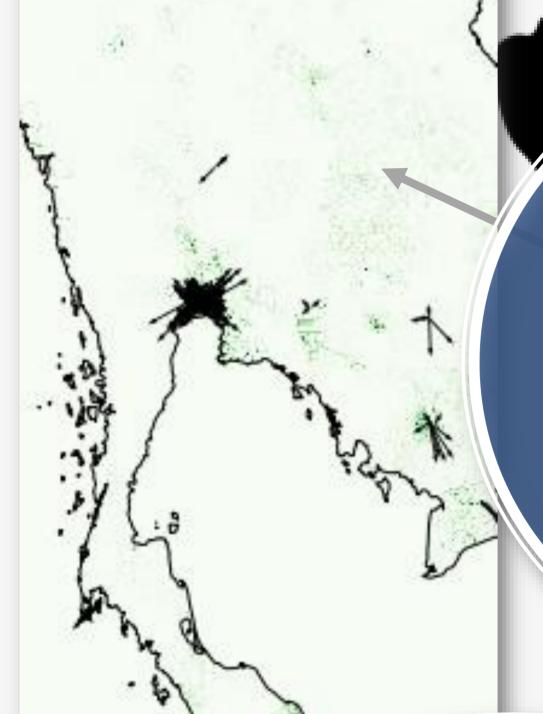
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Population count clustering over Thailand

My project ended with a trip to Thailand, travelling in Bangkok.



Google Earth Engine was used to extract population count data over Thailand in coarse frames over 2000-2020.



Optical flow is a numerical scheme used to infer the velocities of pixels across frames.



A type of neural network called an **autoencoder** is used to produce efficient representations of input data. We have designed an autoencoder that can locally encode individual pixels based on their values in multiple dimensions.

K-means and DBSCAN
algorithms are used to
cluster the encodings
from the autoencoder
and produce a
segmentation of the
image data. Cosine
similarity is then used to
match the clusters in
consecutive frames.

