Example student projects

These anonymized old student projects, which received grade 12, are from a similar course (but not the same) from another university. Note that the page requirements were different in that course (they had to write a bit more), but these give you quite a good idea what to do:

https://learnit.itu.dk/mod/folder/view.php?id=157206

Example data sets

<https://geographicdata.science/book/data/README.html>

<https://freegisdata.rtwilson.com/>

<https://geodacenter.github.io/data-and-lab/>

https://pubmed.ncbi.nlm.nih.gov/31827097/

<http://snap.stanford.edu/data/index.html#locnet> (Two data sets of location-based online social networks)

[OpenStreetMap](https://wiki.openstreetmap.org/wiki/Downloading_data) (data can be accessed through for example OSMnx or from [Geofabrik](https://download.geofabrik.de/), [BBike](https://download.bbbike.org/osm/) or the Overpass API)

[Opendata.dk](https://www.opendata.dk/) (open datasets from Danish municipalities)

[Dataforsyning.dk](https://dataforsyningen.dk/) (official portal for open public spatial data in Denmark. Data are free but you need to create a user to access it)

[Åpne data - Oslo Bysykkel](https://oslobysykkel.no/apne-data) (open data on city bikes in Oslo)

https://www.nature.com/articles/sdata201889, https://transitfeeds.com/p/rejseplanen/705 (GTFS public transport)

Example professional projects

Some of these projects took many months of work and would be too big or too polished for an exam submission - their only purpose is to inspire you and give you a possible direction.

Research papers

LISA: https://learnit.itu.dk/pluginfile.php/318420/mod\_resource/content/1/reading05\_2.pdf

Clustering: https://learnit.itu.dk/pluginfile.php/318853/mod\_resource/content/1/reading6\_1.pdf

Point patterns: https://learnit.itu.dk/mod/resource/view.php?id=156396

Urban form/taxonomy: <https://journals.sagepub.com/doi/10.1177/23998083211059835>

Street networks/OSMnx: <https://journals.sagepub.com/doi/abs/10.1177/2399808318784595>, https://learnit.itu.dk/mod/resource/view.php?id=156509

Spatial variation: https://learnit.itu.dk/mod/resource/view.php?id=156395

Prototypes / Software

http://www.everystreetchallenge.com/

https://www.juliusingemann.com/sproute

https://twitter.com/sundellviz/status/1477267611025035265

https://jamaps.github.io/maps.html

https://tjukanov.org/

https://taraskaduk.com/posts/2020-12-06-uber-movement-kyiv/

https://github.com/kindofdoon/fog\_of\_war

https://share.streamlit.io/annefj/15minutescitiesvisualization/main/15minutecity\_webpage.py

Useful Python libraries/tools

Additional to what you learned in the course.

https://anitagraser.github.io/movingpandas/

https://udst.github.io/pandana/

http://docs.momepy.org/en/stable/

<https://github.com/HTenkanen/pyrosm>

<https://github.com/scikit-mobility/scikit-mobility>

https://holoviz.org/

https://gregorhd.github.io/osm2bokehserver-pt1/

https://www.unfolded.ai/ | https://deck.gl/ | https://kepler.gl/

<https://rasterio.readthedocs.io/en/latest/>   (for introduction to how to use see <https://autogis-site.readthedocs.io/en/latest/lessons/Raster/overview.html> or <https://geobgu.xyz/py/rasterio.html>)

https://github.com/UDST