Master Thesis – ML/AI removal of non-static objects

About Maxar

Maxar Sweden serves the global professional geospatial market with world-leading 3D geodata, 3D visualization solutions, and 3D image processing solutions. We're on a mission to build the Globe in 3D—a revolution in GEOINT tradecraft—that offers decision makers and analysts the entire world in highly accurate, immersive 3D. Maxar's customers are varied and come from the telecommunications, emergency response, defense, and intelligence communities.

We are searching for the best and brightest to join a culture that is open and flexible, inclusive and positive. We offer opportunities for growth and the ability to work with talented people who make a real difference for our clients. Most of our research and development work is done in our Linköping office in Sweden, which employs about 80 engineers who work on cutting-edge technology to produce unparalleled, global, precise 3D geospatial data and software.

The Thesis

Satellites take images of the earth which we're using to make a 3d reconstruction. These images are not taken at the same time and could even be years apart. This makes 3d reconstruction of non-static objects impossible. Cars are one example of non-static objects which moves around even between images only taken seconds apart.

To be able to recognize cars or other moving objects would increase the precision of the 3D reconstruction. This thesis should investigate the possibility to either detect a set of non-static objects or detect moving arbitrary objects which is only present in one or a small set of the images.

Qualifications

Master of Science student with an interest in AI and image registration techniques.

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