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Project: Prism

Project Plan

Project Overview:

The Prism project is an effort to use Neural Networks to perform image segmentation and object detection from infra-red images. The project focuses on testing the different Neural Network approaches in performing the image segmentation tasks.

Motivation:

Currently, the images are being traced by hand which is time consuming and imprecise since it is done by humans. By using neural networks we can do pixel level classification of the images we can generate new image traces with higher precision and speed.

Main Tasks:

For the internship I will be focusing on two main tasks:

1. Training a DeepLab implementation of an image segmentation Neural Network. With the training results and after running the validation tests I will use the results to compare DeepLab against the other Neural Networks that have been trained in the lab.
2. Preparing training samples by performing image tracing. This way we can generate labels for the training examples that we can use to train and improve the Neural Networks.