Florida Polytechnic University
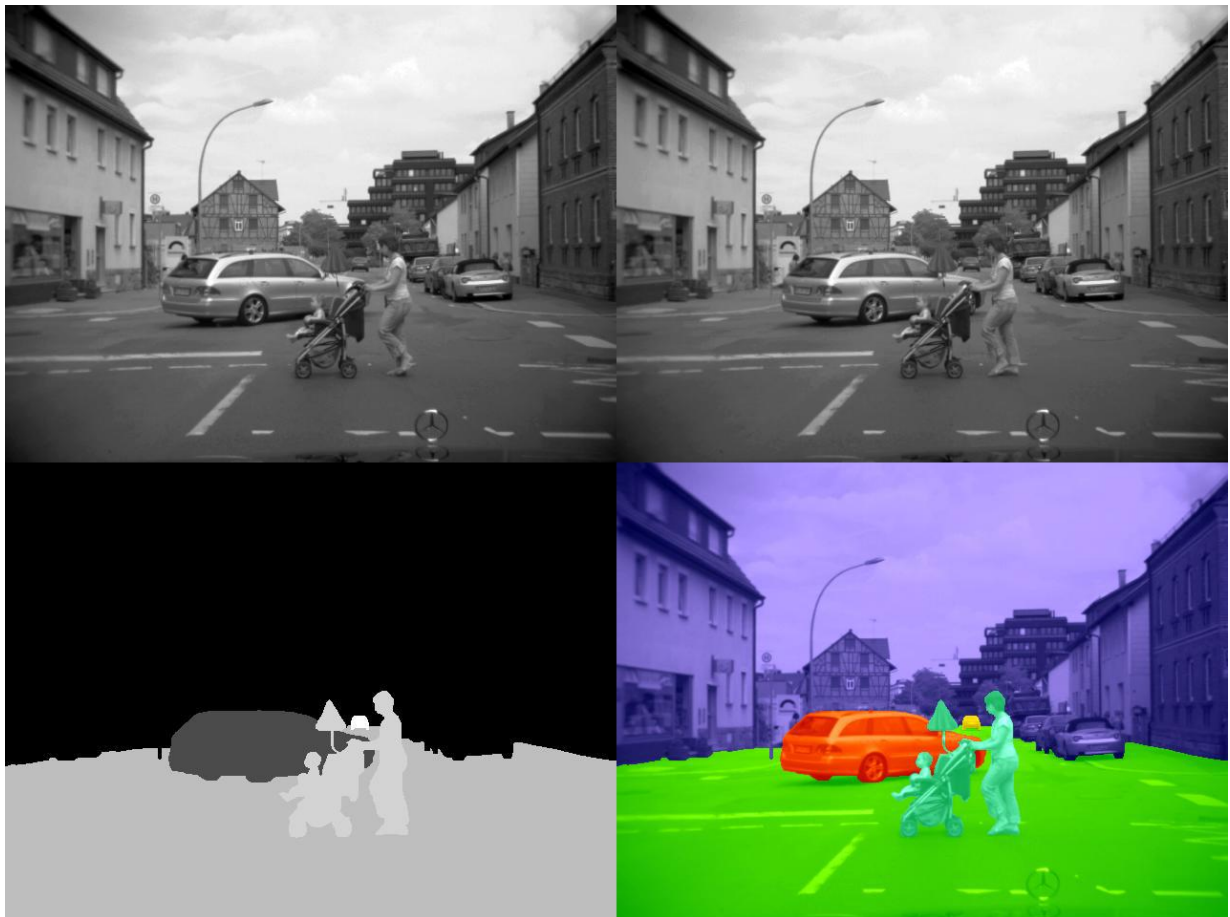
CAP 4410 **Assignment #3** **Spring, 2022**

Due Date: Wednesday 09 March 2022, midnight. In your assignment, please be sure to explain all mentioned points CLEARLY. ***Submit your assignment in electronic format (only on canvas, do not email me). Please follow previous template of the report.***

This assignment requires you to work out a suggestion for semantic segmentation method for some simple input images. You are provided a set of experimental data. Do your own research on image segmentation and find a way how to handle those data.

Example for semantic segmentation

Task Description

- Select your input data from Input Data Folder.
- You are required to "cut out" the main subjects such as sky, ground, or a person.
- Implement Otsu Binarization method. If your data has more information you can create multiple thresholds to detect multiple objects.
- Apply mean shift segmentation method.

Your Submission

To finalize your report,

- start with identifying yourself and provide a title for your report,
- include outputs of your program and code into this report
- do not copy from somewhere without proper citation and reference, but aim at writing in your own words;
- Mention all implementation details.
- Finally submit (together with your sources) your report in PDF format, all in one zip file.
- Only use the given data.

Rubric

Format of report	05 points
Clarity of explanation	05 points
Otsu Method with 2 classes	30 points
Otsu Method with multiple classes	30 points
Mean Shift Method Implementation	30 points

Wish You Best of Luck