ESE 650 Homework 5 - Reinforcement Learning

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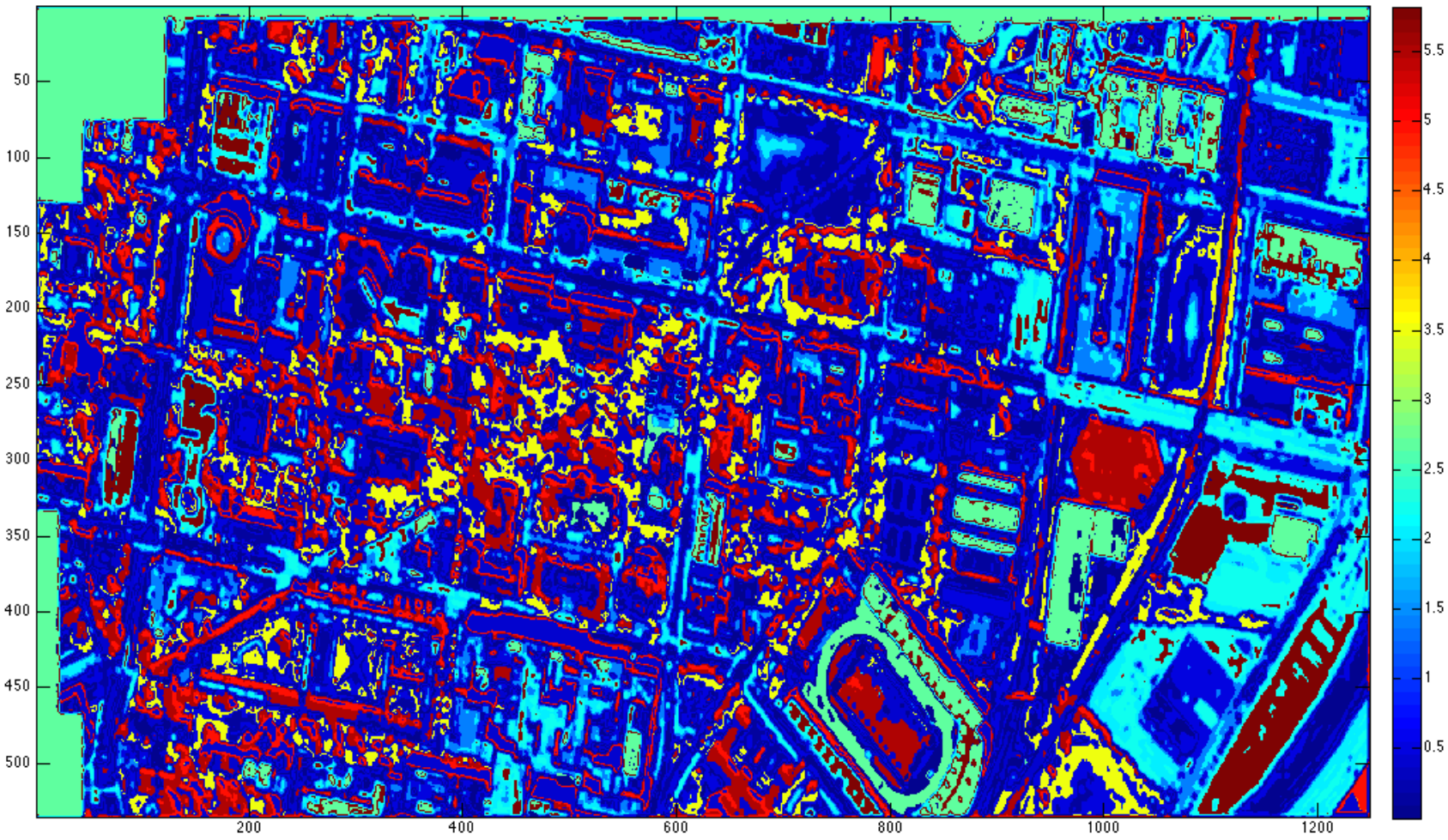
Cost Function

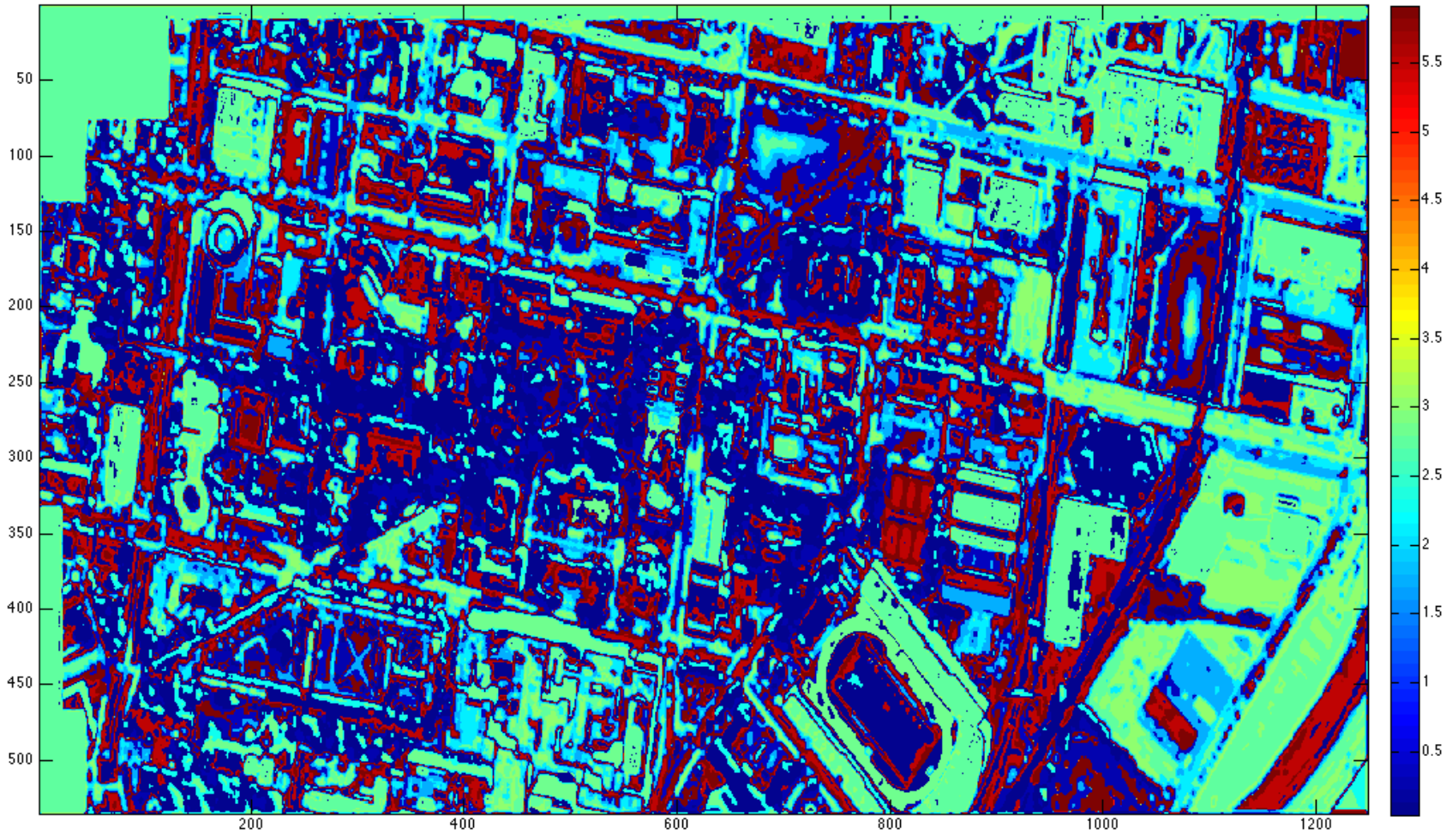
- As presented in class: $C(x, y) = \exp\left(\sum_i w_i h_i(x, y)\right)$
- No cost augmentation

Features

- Gaussian blur
- K-means with 16 RGB color clusters
- Used $\exp^{-1}$ of distance to each cluster center as feature vector



Driving Costmap



Pedestrian Costmap

Interactive Path Planning...

Analysis

- Works well for most roads
- Has a hard time determining where pedestrians can walk

Improvements

- Experiment with cost augmentation
- Pick better features