

Where am I? Predicting Montreal Boroughs from Google Street View Images

Stephanie Laflamme

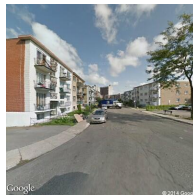
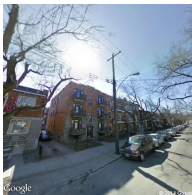
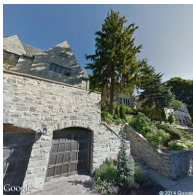
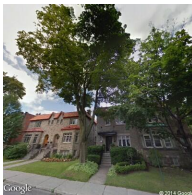
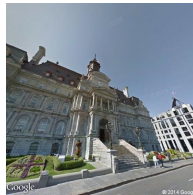
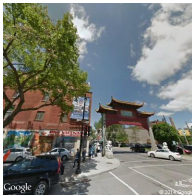
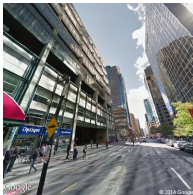
Benedicte Leonard-Cannon

Sherry Ruan

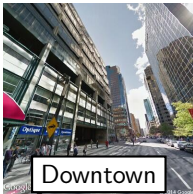
McGill University
COMP 598

November 27, 2014

Nine Montreal Boroughs



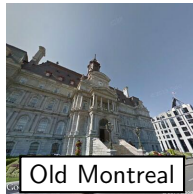
Nine Montreal Boroughs



Downtown



Chinatown



Old Montreal



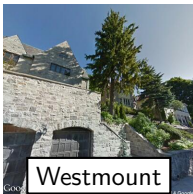
Gay Village



Outremont



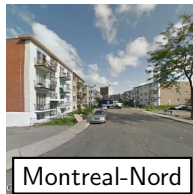
Plateau



Westmount



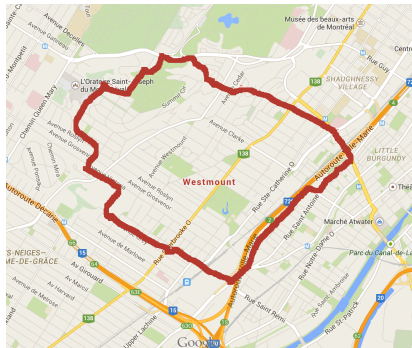
Hochelaga



Montreal-Nord

Image Acquisition

- Google Street View API
- Use geographical coordinates of polygons defining each neighbourhood
- 8000 100×100 images per class
- Greyscale



We compare the following techniques:

- Logistic regression
- Stacked autoencoder
- Convolutional neural network

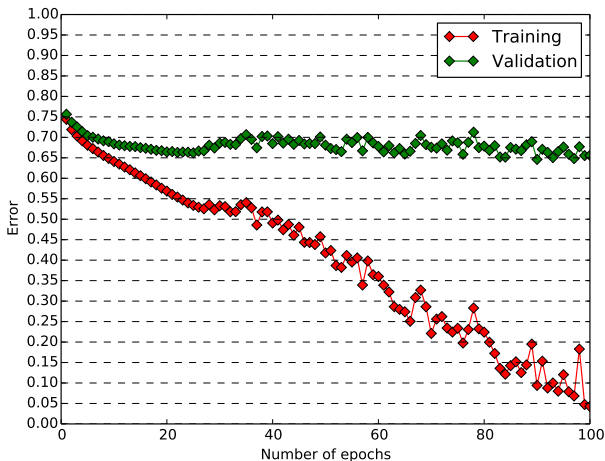
Preliminary Results

Logistic regression

SHITTY RESULTS

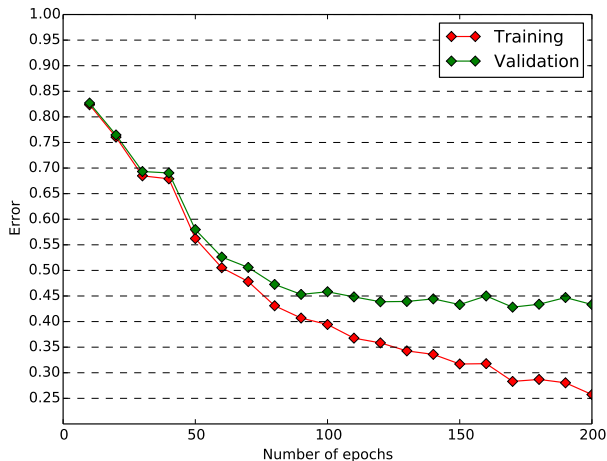
Preliminary Results

Stacked autoencoder



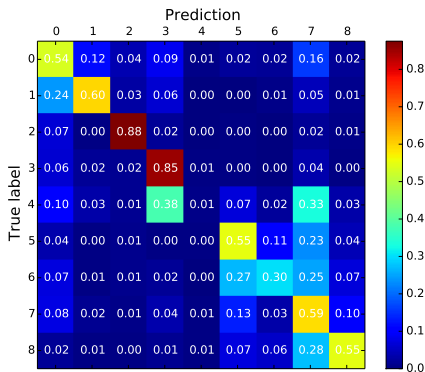
Preliminary Results

Convolutional neural network



Preliminary Results

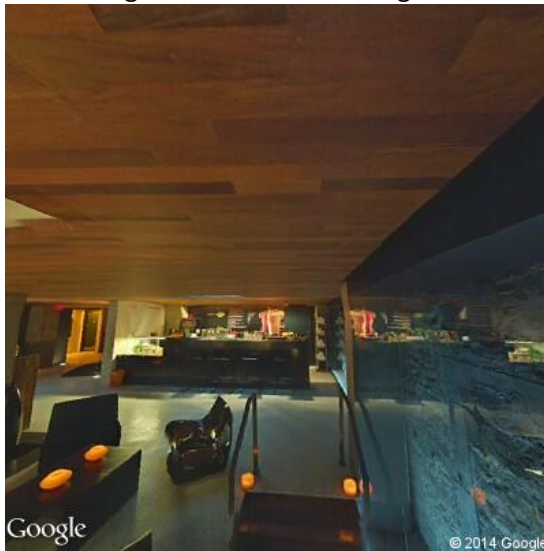
Convolutional neural network



Label	Borough
0	Downtown
1	Old Montreal
2	Chinatown
3	Gay Village
4	Plateau
5	Outremont
6	Westmount
7	Hochelaga
8	Montreal-Nord

Outtakes

Sometimes Google Street View is Google Indoors View...





The End