App Design Evaluation Project

Visuals are important part of highly rated mobile apps. The idea of this project is to automatically evaluate visuals of mobile apps. The screenshots from Apple App Store and Google Play store are used to predict rating of the app.

The project consist of following steps:

1. Collecting (scraping) screenshots and ratings from Apple App Store and Google Play store. Google Play has 2.8M and App Store has 2.2M apps as of 2017. That should be enough for training a neural network.
2. Train a convolutional neural network to predict rating from a screenshot. This can be approached either as a regression problem (predict number between 1-5) or classification problem (predict one of the numbers 1-5).
3. Try to visualize what the network sees as good or bad designs. This can be done using either data gradient (Simonyan, Vedaldi, and Zisserman 2013), deconvolutions (Zeiler and Fergus 2013) or guided backpropagation (Springenberg et al. 2014). It could be also used to improve bad screenshot by performing gradient descent in image space towards better rating.

Neural network training can be easily implemented using Keras¹.

Supervisors:
Tambet Matiisen, tambet.matiisen@ut.ee, PhD student in Institute of Computer Science
Kristian Sägi, kristian@nevercode.io
Triin Kask, triin@nevercode.io

References


¹ https://keras.io/