Project proposal

Aidana Kabdulova

- **What is the problem that you will be investigating? Why is it interesting?**
  The main problem of my project is recognition boat's type. In my dataset I have different types of boat's image, for example dishes in the form of boat. I think, it is interesting to fit the model to classify this dish as "gondola" class. Mostly, all of boats look similar to each other and it would be useful to construct model to classify them.

- **What reading will you examine to provide context and background?**
  Papers from project description and from the Google Scholar.

  http://www.cs.toronto.edu/~fritz/absps/imagenet.pdf
  http://cs231n.stanford.edu/reports/2017/pdfs/119.pdf
  http://cs231n.stanford.edu/reports/2015/pdfs/zyh_project.pdf

- **What data will you use? If you are collecting new data, how will you do it?**
  I will use " Boat type recognition" data. This data has about 1500 pictures of boats, of various sizes. Data classified by those different types: buoy, cruise ship, ferry boat, freight boat, gondola, inflatable boat, kayak, paper boat, sail boat.

- **What method or algorithm are you proposing? If there are existing implementations, will you use them and how? How do you plan to improve or modify such implementations?**
  Now, I don't know exactly which algorithm or method I would use. But, I think I will use methods as Convolution Neural Network, MaxPooling and ImageDataGenerator.

- **How will you evaluate your results? Qualitatively, what kind of results do you expect (e.g. plots or figures)? Quantitatively, what kind of analysis will you use to evaluate and/or compare your results (e.g. what performance metrics or statistical tests)?**
  I will plot on the one graph my training and validation accuracy and loss.