CS323: Deep Learning for Visual Computing

Reading Assignment 1

Due Date - 16/02/2023

Welcome to the first reading assignment of CS323. These assignments aim at preparing you for the projects through providing you with important readings. You will be expected to answer questions related to the readings, material provided in class, or both. Good Luck 🪡...

1 AlexNet Paper

Read AlexNet paper titled "ImageNet Classification with Deep Convolutional Neural Networks" by Alex Krizhevsky et al. (`https://proceedings.neurips.cc/paper/2012/file/c399862d3b9d6b76c8436e924a68c45b-Paper.pdf`). This paper is one of the most influential papers that brought deep learning to the forefront.

2 ResNet Paper

Read ResNet paper titled "Deep Residual Learning for Image Recognition" by Kaiming He et al. (`https://www.cv-foundation.org/openaccess/content_cvpr_2016/papers/He_Deep_Residual_Learning_CVPR_2016_paper.pdf`). This paper is also one of the most influential papers that drastically improved the performance of deep learning models.

Question:

Briefly discuss the contributions of each of the two papers above. Afterwards, compare ResNet and AlexNet in terms of performance and architectural design.