

Paarth Neekhara

Education

- 2017–Present **Masters in Computer Science**, *University Of California San Diego*, CGPA 4.0.
2013–2017 **BTech in Computer Science**, *IIT Roorkee*, CGPA 8.6 (scale of 10).

Experience

- Jan–Mar 2018 **Teaching Assistant**, *CSE-253 Neural Networks for Pattern Recognition*, UCSD.
Conducted Discussion sessions on Machine Learning topics, designed assignments, Doubt sessions and grading
- Oct–Dec 2017 **Teaching Assistant**, *MUS-206 Machine Learning for Music Generation*, UCSD.
Conducted Doubt sessions, helped students with project proposal ideas, project evaluations
- May–July 2016 **Software Engineering Internship**, *Microsoft IDC*, Hyderabad, India.
Worked with the Bing STCI Team and wrote a pipeline to extract Event related data from the distributed cloud database of Microsoft - COSMOS.
- May-2015 - Present **Project Lead**, *Blue Water Trade Winds*, Dehradun, India.
Worked with a small team of software engineers to design and implement a web-based software service to plan an optimum route and speed schedule for a voyage.
<http://bwesglobal.com/boss.html>

Deep Learning Projects

- Nov 2017 **Convolutional–VQA**, <https://github.com/paarthneekhara/convolutional-vqa>.
Used a dilated convolutional model for sequence modelling for the task of Visual Question Answering using attention over Visual Features
- Dec 2016 **ByteNet**, <https://www.github.com/paarthneekhara/byteNet-tensorflow>.
Implemented the bytenet model of dilated convolutions for sequence to sequence translation from the DeepMind's paper "Neural Machine Translation in Linear Time" .
- Oct–Dec 2016 **Unsupervised Image to Image Translation**, <https://arxiv.org/abs/1701.02676>.
Worked remotely with PhD students from Imperial College London, on the task of domain translation using an Auxiliary GAN. A trained generator network was inverted to project back to latent space and cross-conditioned to synthesize corresponding image in a different domain.
- Aug 2016 **Text To Image Synthesis**, <https://www.github.com/paarthneekhara/text-to-image>.
Developed a tensorflow implementation of synthesizing images from text by conditioning a generative adversarial network with skip thought vectors. Used the GAN-CLS algorithm from the paper "Generative Adversarial Text-to-Image Synthesis" and conditioned it with uni-skip vectors.

Relevant Courses

- Graduate CSE-250A Probabilistic Graphical Models, CSE-293 Convex Optimization, CSE-250B Machine Learning Statistical Approach
- Online Stanford CS-231n, Stanford CS-224d

Hobbies

Cycling, Running, Trekking, Photography

Achievements

- National Runners Up, Microsoft Code Fun Do Finalist Forum, India - 2016
- College Runners Up, Microsoft Code Fun Do, IIT Roorkee - 2015