

# Arnab Ghosh

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## PUBLICATIONS

**DGPose: Disentangled Semi-supervised Deep Generative Models for Human Body Analysis**

R. de Bem, A. Ghosh, T. Ajanthan, O. Miksik, N. Siddharth, and P. Torr  
arXiv:1804.06364

**Multi Agent Diverse GANs**

A. Ghosh, V. Kulharia, V. Namboodiri, P. Torr, P. Dokania  
CVPR 2018

**Message Passing Multi Agent GANs**

A. Ghosh, V. Kulharia, V. Namboodiri  
arXiv:1612.01294

**Contextual RNN-GANs for Abstract Reasoning Diagram Generation**

A. Ghosh, V. Kulharia, A. Mukerjee, V. Namboodiri, M. Bansal  
AAAI 2017

**The Application Slowdown Model**

L. Subramanian, V. Seshadri, A. Ghosh, S. Khan, O. Mutlu  
MICRO 2015

## RESEARCH INTERESTS

Deep Learning, Computer Vision, NLP

## EDUCATION

**UNIVERSITY OF OXFORD**

DPhil in Computer Science

Expected Graduation: July 2022 | Oxford, UK

**IIT KANPUR**

BTech in Computer Science

Graduated: July 2016 | Kanpur, IN  
Major CPI: 9.0 / 10.0

## COURSEWORK

**UNDERGRADUATE**

Probabilistic Machine Learning

Kernel Methods in Machine Learning

Machine Learning Tools & Techniques

Cognitive Science

Applied Probability and Statistics

Approximation Algorithms

Functional Programming

Probability And Statistics

Operating Systems

Theory Of Computation

Discrete Mathematics

## EXPERIENCE

**OXFORD UNIVERSITY** | PHD ADVISED BY PROF. PHILIP TORR

Oct 2017 – Present | Oxford, UK

- Designing multi agent generative models with message passing and mode specializing capabilities based on Game Theoretic Principles
- Designing and analyzing experiments to figure out failure cases of Generative Models
- Designed a generative model for pose which could be used for Pose Transfer in images in the wild as well as applied to a fashion database.

**ADOBE RESEARCH** | RESEARCH INTERN ADVISED BY ELI SHECHTMAN

RICHARD ZHANG OLIVER WANG

June 2018 – Sep 2018 | Seattle, US

- Designed a modified Residual Block for Generator and Discriminator based models
- Designing a model to have multi-class generation properties from rough cues such as scribbles

**TECHNICAL UNIVERSITY OF MUNICH** | RESEARCH INTERN ADVISED BY PROF. MATTHIAS NIESSNER

June 2017 – Aug 2017 | Munich, DE

- Designed a generative model for textures along with geometry from single view supervision. Extended the Octree Generating Networks for textures and colors for high resolution adaptive resolution of voxel colors.

**WE CREATE PROBLEMS** | RESEARCH INTERN

Nov-Dec 2016 | Bangalore, IN

- Designed a model to generate questions and answers from technical documentations which can be used for quicker assignment of projects based on skills of employees.
- Advised an intern to create automatic descriptions and summary of the code written for Business Analytics tools such as R.

**TTI-CHICAGO** | RESEARCH INTERN ADVISED BY PROF. MOHIT BANSAL

May 2016 – Sep 2016 | Chicago, USA

- Worked on Visual Question Answering using image graph techniques. Designed several models based on Dynamic Memory Networks, using both textual and visual features.

**ADOBE RESEARCH** | RESEARCH INTERN

May 2015 – July 2015 | Bangalore, IN

- Designed a model to estimate the viewers of a media story engaged in different activities & designed a predictive model to assist media companies to predict context & activity of the user while reading on a mobile device.

**CARNEGIE MELLON UNIVERSITY** | SUMMER UNDERGRADUATE RESEARCH INTERN ADVISED BY PROF. ONUR MUTLU

May 2014 – July 2014 | Pittsburgh, USA

- Designed a model for estimating slowdown of a particular app when running alongside Co-Running threads using the Cache Access Rate.
- Wrote Synthetic Benchmarks which targeted a definite Memory Access Pattern which would cause interference to the test Applications.