

Tushar Nagarajan

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Education

The University of Texas at Austin

M.S. Computer Science | 2016 - present | GPA: 3.9/4

Coursework: Visual Recognition, Deep Learning, Natural Language Processing, Robot Learning

BITS Pilani, Goa Campus, India

B.E. Computer Science | 2011 - 2016 | GPA: 9.4/10

MSc. Physics (dual degree)

Coursework: Artificial Intelligence, Data Mining, Quantum Computing, Cryptography

Skills

Programming: Python, Java, C/C++, Lua, Octave/Matlab, R

Packages: Pytorch/Torch, Caffe, Tensorflow, Hadoop, Spark

Research

Research Assistant - UT Austin Vision Research Group | Dr. Kristen Grauman | Jan 2017 –

Research Intern - IBM Research | Dr. Rogerio Feris | May - Aug 2017

Research Intern - Indian Institute of Science, Bangalore | Dr. Partha Talukdar | Jun 2015 – Jul 2016

Projects

Dynamic Inference Paths in ResNets | May - Aug 2017

Research Intern | Dr. Rogerio Feris | IBM Research, Yorktown Heights

- Trained an RL based agent to drop blocks of a ResNet conditioned on the input image - achieves 20%-36% speedup with no loss of accuracy
- Paper currently under review for CVPR 2018

Neural Models for Relation Extraction with Background Knowledge | Jun 2015 – Jul 2016

Research Intern | Dr. Partha Talukdar | Indian Institute of Science, Bangalore

- Modeled neural network architectures with attention mechanisms for the task of relation extraction.
- Explored the hypothesis that background information (in the form of verb and entity similarities) acts as intelligent regularizers during optimization.
- Presented as a ACL 2017 Workshop paper [\[link\]](#)

Computational Design of Antimicrobial Peptides | Jun - Dec 2015

Collaboration with Dept. of Biochemistry | Indian Institute of Science, Bangalore

- Designed protein sequences that exhibit antimicrobial properties using residue level recurrent neural networks
 - Synthesized the designed peptide sequences and performed biochemical tests for antimicrobial activity.
 - Published in JBC, 2017 [\[link\]](#)
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Additional Experience

· **Teaching Assistant** - Introduction to Data Management at UT Austin

Aug - Dec 2016

· **Teaching Assistant** - Artificial Intelligence at BITS Pilani

Aug - Dec 2014