Ameya Godbole

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EDUCATION

UNIVERSITY OF MASSACHUSETTS AMHERST — Amherst, MA | Expected May 2020
MS in Computer Science (GPA: 4.0/4.0)

INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI — Guwahati, India | May 2018
B.Tech in Electronics & Communication Engineering (Major GPA: 9.15/10)
Minor in Computer Science & Engineering (Minor GPA: 8.8/10)

PUBLICATIONS

[1] **A Godbole** *, D Kavarthapu*, R Das*, Z Gong, A Singhal, H Zamani, M Yu, T Gao, X Guo, M Zaheer and A McCallum, **"Entity-centric Information Retrieval for Multi-Hop Question Answering"** , MRQA-EMNLP 2019 (Under review)

[2] **A Godbole** *, R Das*, M Zaheer, S Dhuliawala and A McCallum, **"Reasoning over Chains of Facts for Explainable Multi-hop Inference"** , TextGraphs-EMNLP 2019

[3] **A Godbole** *, S Bhat* and P Guha, **"Progressively Balanced Multi-class Neural Trees"** . NCC 2018

EXPERIENCE

SRI INTERNATIONAL — May 2019 – Aug 2019 | Menlo Park, CA
Machine Learning Intern

- Member of a team of researchers from the **Artificial Intelligence Center (AIC)** participating in the **DARPA** program: Radio Frequency Machine Learning Systems **(RFMLS)**
- Applied and benchmarked **reinforcement learning** & **imitation learning** based approaches to control an antenna array for RF monitoring beating existing baselines

CENTRE FOR DEVELOPMENT OF ADVANCED COMPUTING — May 2016 – July 2016 | Pune, India
Software Development Intern

- Designed and contributed to a molecular dynamics simulator at CDAC
- Studied the principles of parallel computing and implemented the same with MPI to make a simulator capable of utilizing the processing capabilities of a CPU cluster for particle dynamics simulations

PROJECTS

ENTITY-CENTRIC INFORMATION RETRIEVAL FOR MULTI-HOP QUESTION ANSWERING
IESL, UMass Amherst — Jan 2019 – May 2019

- Developed a document retrieval technique that uses information of entities present in the initially retrieved evidence to learn to 'hop' to other relevant evidence.
- In a setting, with more than **5 million** Wikipedia paragraphs, our approach leads to significant boost in retrieval.
- The retrieved evidence also increased the performance of an existing QA model (without any training) on the HotpotQA benchmark by **10.59 F1** .
- Won **1st place at TextGraphs 2019** by applying the same principles to Explanation Regeneration.

PROGRESSIVELY BALANCED MULTI-CLASS NEURAL TREES — Github://**ameyagodbole/augmented-dtree**
Dr. Prithwijit Guha, Dept. of EEE, IIT Guwahati — Aug 2017 – May 2018

- Proposed and tested an entropy impurity based objective function for incorporating a learnable perceptron into the decision tree framework.
- The learned classifier achieves comparable accuracy with fewer test time computations than an MLP.

TECHNICAL SKILLS AND COURSEWORK

Prog. Languages — Python, Java*, C++*
Frameworks/Libraries — PyTorch, TensorFlow, Keras, MATLAB
Miscellaneous — Numpy, Pandas, scikit-learn, OpenMP, MPI*
Graduate Coursework

- AI: Probabilistic Graphical Models, Machine Learning, Reinforcement Learning
- Systems: Distributed & Operating Systems
- Theory: Algorithms for Data Science

* Elementary proficiency