

Meghana Moorthy Bhat

CONTACT INFORMATION

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RESEARCH INTERESTS

Language understanding and generation.

EDUCATION

Ohio State University, Columbus, OH, USA

Ph.D. in Computer Science

August 2019 - May 2024 (Expected)

Adviser: [Prof. Srinivasan Parthasarathy](#)

University of Wisconsin-Madison, Madison, WI, USA

Master of Science, Computer Science

Sep 2017 - May 2019

(CGPA: 3.6/4.0)

Sri Jayachamarajendra College of Engineering (SJCE), Mysore, India

Bachelor of Engineering (Honours), Computer Science

Sep 2008 - Jun 2012

(CGPA: 9.21/10)

RESEARCH EXPERIENCE

Research Intern, Microsoft Research, Redmond, WA (Remote)

Adviser: [Saghar Hosseini](#), [Ahmed Hassan Awadallah](#), [Paul Bennett](#)

May 2020 - Ongoing

Research Intern, Mila, Montreal, QC

Adviser: [Prof. Laurent Charlin](#)

June 2019 - August 2019

TPMS: Proposed methodology to assign reviewers for the submitted papers in conferences using Microsoft CMT.

- *Document Representation*: Explored neural topic models to represent documents.
- *Evaluation*: Clustering and supervised learning approach using fully connected neural network inspired from Siamese networks.
- *Ongoing*: Fairness evaluation in assigning papers to reviewers.

Graduate Researcher, UW-Madison, WI, USA

UW-Madison (Adviser: [Prof. Justin Hsu](#))

Sep 2018 - June 2019

- *Detecting Fake News with NLP: Challenges and Possible Directions*: Designed adversarial attacks that can ‘fool’ classification algorithms built on fact checking using NLP algorithms.
- *Evaluated our generated examples against current state-of-the-art techniques to detect ‘neural fake news’* Grover AI and FakeBox.

Graduate Researcher, UW-Madison, WI, USA

[Prof. Theodoros Rekatsinas](#)

Sep 2017 - Dec 2018

- Proposed algorithms to perform error detection and correction for structured data using deep learning (DL).
- Approximate discovery of Functional Dependencies (FDs) using structure learning

- Tested the accuracy of results against [HoloClean](#) for different noisy datasets.

PROFESSIONAL EXPERIENCE

Qualcomm, San Diego, CA, USA

Machine Learning Intern

June 2018 - Aug 2018

Intel Corporation, Bangalore, India

Design and Software Engineer (Infrastructure and performance modelling)

Jul 2012 - Jul 2017

PAPERS AND CONFERENCES

1. **Meghana Moorthy Bhat**, Zhixuan Zhou “Fake News Detection via NLP methods becomes harder.” Women in Machine Learning associated with NeurIPS 2019, Vancouver, BC, Canada (WiML).
2. **Meghana Moorthy Bhat**, Yogesh Chockalingam, Manjunath NS “DeepRepair: A framework for error detection and correction.” Montreal AI Symposium 2019, Montreal, QC, Canada (MAIS).
3. Zhixuan Zhou, Huankang Guan, **Meghana Bhat** and Justin Hsu “Detecting Fake News with NLP: Challenges and Possible Directions.” International Conference on Agents and Artificial Intelligence (ICAART) 2019.
4. **Meghana Moorthy Bhat**, Josef Eckmueller, Melwyn Scudder. “Performance Optimization of Virtual Prototypes.” DTTC Intel, Portland, Oregon, USA 2015. (DTTC is Intel global internal conference)
5. **Meghana Moorthy Bhat**, Melwyn Scudder, Kartik Shah. “Virtual Prototype (VP) Quality Improvement Methodology.” DvCon India, Bangalore, India, 2015.

PROJECTS

Toxic language detection in Email conversations.

Microsoft Research

May 2020 - Present

Developing taxonomy, data collection and methodology to detect and reason over toxic conversations in organization settings.

Fairness Evaluation of peer-reviewer assignments of conference papers.

Mila

Nov 2019 - Present

Exploring methodologies to evaluate fairness in paper assignments.

Understanding robustness of fake news detectors by generating adversarial examples.

Ohio State University (Adviser: [Prof. Srinivasan Parthasarathy](#))

Jan 2020 - June 2020

Snapdragon Neural Processor Engine (SNPE)

Qualcomm (Adviser: [Mark Charlebois](#))

June 2018 - Aug 2018

Worked on enabling 8-bit CPU (Fixed point math) in SNPE for better performance in overall speed-up and lesser memory consumption for SNPE AI powered phones.

Entity Matching using Machine Learning and Deep Learning

UW-Madison (Course: Data Science, with [Prof. AnHai Doan](#))

Feb 2018 - Apr 2018

Performed entity matching of books from raw data of Amazon and GoodReads using [Magellan](#) and [DeepMatcher](#). Performed benchmark analysis of both the approaches to understand the respective trade-offs. [Code](#)

Speaker Detection Algorithm for Safer Home Project

UW-Madison (Adviser: [Prof. Suman Banerjee](#))

Feb 2018 - Apr 2018

As a team member of [Safer Home](#) project, extended [Paradrop](#) to incorporate speaker detection module using hidden markov process. The project Safer Home emerged as one of the winner teams in US Ignite challenge. [Link](#)

Performance Optimization for Virtual Prototypes

Intel Corporation (Manager: [Bharat Singh](#))

Jan 2013 - Jan 2014

Designed and developed a profiler system to identify potential performance bottlenecks. Also, performed data analysis on cache hits and misses. Received Department Recognition Award for the outstanding contribution.

TEACHING EXPERIENCE

Ohio State University, Columbus, OH, USA

Graduate Teaching Assistant

Aug 2019 - Dec 2019

University of Wisconsin-Madison, Madison, WI, USA

Graduate Teaching Assistant

Jan 2018 - May 2019

TECHNICAL SKILLS

Scientific Computing - Python (numpy, scipy, sklearn, PyTorch, TensorFlow, Keras)

General-purpose Programming & Others - Java, C++, SQL

COURSEWORK

UW Madison

CS 839 Data Management for Machine Learning Applications

CS 839 Topics in Security

CS 838 Data Science: Principles, Algorithms, Applications

CS 760 Machine Learning

CS 765 Data Visualization

SJCE Mysore

Databases and Management Systems

Algorithms and Data Structures

Operating Systems

Introduction to Networks

HONOURS AND ACHIEVEMENTS

NSF Student Travel Grant to attend WiML co-located with NeurIPS 2019.

Student Travel Award to attend NeurIPS 2019.

Qualcomm Hackathon Finalist - Award for Innovation, 2018.

[Application development award](#) from [US Ignite](#) for SAFER Home project.

Department Recognition Award, Intel Corporation for successful critical project completion, 2015.

Employee Recognition Award, Intel Corporation for acceptance of poster presentation in DvCon India, 2015.

Conferral of the Honours degree in CSE, SJCE Mysore, 2012 (Requires minimum of 8.5 CGPA throughout the last two years of undergraduate studies).

State Board Merit Scholarship, Karnataka Secondary Education Examination Board (KSEEB) India, for 4 years of undergraduate study covering 75% of undergraduate tuition fee, 2008-2012.

Ranked All India 780 out of 400,000 candidates in Common Entrance Test, 2008.

EXTRACURRICULAR ACTIVITIES

Carnatic classical vocalist - Performed over 300+ concerts across India and USA. [Audio](#)

WiML Workshop (2019) volunteer.

Volunteered for Linux Club and SJCE music club during undergraduate studies to organize tech talks and events.