

Muqeeth Mohammed

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EDUCATION

- **University of North Carolina - Chapel Hill** Chapel Hill, NC
Masters of Science in Computer Science Aug 2021 - May 2023
 - **Research Interests:** Natural Language Processing, Transfer Learning, Machine Learning, Optimization
- **Indian Institute of Technology Madras** Chennai, India
Bachelor of Technology (Honors) in Electrical Engineering — GPA:9.36/10.0 (Rank 8/60) Jul 2016 - May 2020
 - **Coursework:** Machine Learning, Non-Linear Optimization, Probabilistic Graphical Models
 - **Thesis:** Estimation of relatedness between courses in Workflow

EXPERIENCE

- **University of North Carolina - Chapel Hill** Chapel Hill, NC
Graduate Student Researcher — Advisor: Prof. Colin Raffel Aug 2021 - May 2023
 - Working on developing algorithms that can overcome the issue of not having well-defined gradients in models that use conditional computation, for example, Mixture of experts (MoEs)
- **Indian Institute of Technology, Delhi** Delhi, India
Research Assistant — Advisors: Prof. Mausam, Prof. Soumen Chakrabarti Jul 2020 - Jul 2021
 - Worked on Multilingual Open Information Extraction with focus on low resource languages
 - Also worked on a unified labeling architecture for structured prediction tasks that include syntax, semantics, information extraction, and sentiments in NLP which is 3x faster than state-of-the-art achieving nearly the same accuracy
- **Senior Thesis** Chennai, India
Undergrad Student — Advisors: Prof. Sutanu Chakraborti, Prof. Anil Prabhakar Jan 2020 - May 2020
 - Designed a retrieval system to retrieve relevant courses to a given query course from our university courses
 - Used explicit semantic analysis with the addition of phrases to achieve 0.868 nDCG score compared to a neural model baseline of 0.735. Implemented the idea of retrofitting to user feedback to further improve the score to 0.92
- **Flipkart** Bengaluru, India
Summer Intern May 2019 - July 2019
 - Built an unsupervised classification model to classify opinion-aspect pairs from Flipkart review corpus for shoes into categories. Achieved an accuracy of 76 % on human-annotated test set
 - Implemented decision trees using features from the review sentence's dependency parse to identify the categories like Quality, Comfort, etc. implicitly or explicitly spoken in a review with an F1 score close to 86% for each category

PUBLICATIONS

- **Consistent Crosslingual Data Transfer for Open Information Extraction (ACL, 2022)**
Keshav Kolluru, Muqeeth*, Shubham Mittal, Soumen Chakrabarti, Mausam*

SELECTED PROJECTS

- **Multidomain Image Classification'21:** Modeled image classification from diverse domains using MOEs. This modeling reduced the negative transfer between images from multiple domains to improve the final classification accuracy
- **Movie Recommender System'19:** Built an ensemble model of collaborative filtering using the neighborhood method and SVR regression to predict user rating for a movie in the MovieLens dataset.
- **InterIIT Mobile App'17:** Designed features like live streaming, live score, and a gallery page for the InterIIT games mobile app using Ionic. Deployed the app successfully onto the play store with more than 5k downloads and a 4.3/5 rating

MISCELLANEOUS

- Received Masters Merit Fellowship for the first year at UNC Chapel Hill
- Received RamShriram Merit Scholarship at IIT Madras for maintaining 8.0+ GPA every year
- Reviewer: ACL 2022 (ACL Rolling Review)

TECHNOLOGIES

- Python, PyTorch, Sklearn, Numpy, JavaScript, L^AT_EX