Anvesh Rao Vijjini

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Research Interests

Broadly interested in Alignment, Fairness, Safety, Social Commonsense, and Personalization, within AI and NLP.

Education

2021 - present
PhD in Computer Science,
University of North Carolina at Chapel Hill.
Advisor: Dr. Snigdha Chaturvedi

2017 - 2021
MS in Computational Linguistics,
International Institute of Information Technology, Hyderabad.
Advisor: Dr. Radhika Mamidi

2013 - 2017
B.Tech in Computer Science,
International Institute of Information Technology, Hyderabad.
Awarded Dean's List for being in the top 10% of the class in academics for Monsoon 2015 and Spring 2016 semesters.

Experience

May 2024 - July 2024
Research Intern at Bloomberg.
Worked on extracting universal entity representations from large language models.
- Explored how large language models inherently encode rich entity representations in-context. Without any entity-specific fine-tuning, entity representations extracted from decoder-based LLMs can be applied to tasks such as entity linking, entity typing, slot filling, and question answering by leveraging ranking and clustering with embeddings.

May 2023 - July 2023
Research Intern at Bloomberg.
Worked on document expansion with large language models for improving document retrieval
- Improving document retrieval by using large language models to generate and integrate a diverse set of questions into documents (document expansion), enriching content for improved search results.

May 2022 - July 2022
Research Intern at Adobe.
Worked on transcript segmentation at Project Blink, Adobe's video sharing platform.
- Proposed a pretraining strategy that improves transcript segmentation by training in a curated order, with samples arranged in increasing similarity. Published our work at EACL 2023 (Findings)

August 2018 - August 2021	**Lead Engineer (Research) at Samsung R&D Institute India-Bangalore.** Worked at Bixby Intelligence, Samsung's voice assistant. ○ Automated WER Prediction of Bixby's ASR. ○ Automated Conversation Quality Estimation for the performance evaluation of Bixby conversations. ○ Data Augmentation to eschew manual annotations. ○ Authored research papers based on Text classification and Domain Adaptation at EMNLP 2019, CICLing 2019, NLDB 2019, NLDB 2020, ICPR 2020 and EACL 2021.
Spring 2017	**Teaching Assistant**, *Natural Language Application*. The course covers popular Machine Translation (statistical) methods at the time such as IBM Models, Phrase-Based Models, and Neural Machine Translation.
Monsoon 2016 and 2017	**Teaching Assistant**, *Natural Language Processing*. An overview of various areas in NLP such as Tokenization, Parts Of Speech tagging, Natural Language Generation and Parsing.

Volunteer

○ Reviewer for NAACL 2023, EMNLP 2022, ACL 2020, EMNLP 2020, NLP+CSS @ EMNLP 2020, EACL 2021, ACL 2021, EMNLP 2022, EACL 2023, ACL 2023
○ Student Volunteer for EACL 2023
○ Sessions Chair for NLDB 2020
○ Board member for STEM Pride of the Triangle (stempride.web.unc.edu)

Conference Publications

October 2024	**Exploring Safety-Utility Trade-Offs in Personalized Language Models**, ***Anvesh Rao Vijjini****, *Somnath Basu Roy Chowdhury, and Snigdha Chaturvedi*. under review
June 2024	**SocialGaze: Improving the Integration of Human Social Norms in Large Language Models**, ***Anvesh Rao Vijjini***, *Rakesh Menon, Jiyai Fu, Shashank Shrivastava and Snigdha Chaturvedi*. EMNLP 2024 (Findings)
October 2023	**PARROT: Zero-Shot Narrative Reading Comprehension via Parallel Reading**, *Chao Zhao,* ***Anvesh Rao Vijjini***, *and Snigdha Chaturvedi*. EMNLP 2023 (Findings).
January 2023	**Curricular Next Conversation Prediction Pretraining for Transcript Segmentation**, ***Anvesh Rao Vijjini***, *Hanieh Deilamsalehy, Franck Dernoncourt and Snigdha Chaturvedi*. EACL 2023 (Findings).
October 2022	**Towards Inter-character Relationship-driven Story Generation**, ***Anvesh Rao Vijjini***, *Faeze Brahman and Snigdha Chaturvedi*. EMNLP 2022.
April 2021	**WER-BERT: Automatic WER Estimation with BERT in a Balanced Ordinal Classification Paradigm**, ***Anvesh Rao Vijjini⋆***, *Akshay Krishna Sheshadri⋆ and Sukhdeep Kharbanda*. EACL 2021.

January 2021	**Sequential Domain Adaptation through Elastic Weight Consolidation for Sentiment Analysis**, *Avinash Madasu and **Anvesh Rao Vijjini**.* ICPR 2020
June 2020	**A SentiWordNet Strategy for Curriculum Learning in Sentiment Analysis**, ***Anvesh Rao Vijjini⋆**, Kaveri Anuranjana⋆ and Radhika Mamidi*. NLDB 2020
June 2020	**A Position Aware Decay Weighted Network For Aspect Based Sentiment Analysis**, *Avinash Madasu and **Anvesh Rao Vijjini***. NLDB 2020
November 2019	**Sequential Learning of Convolutional Features for Effective Text Classification**, *Avinash Madasu and **Anvesh Rao Vijjini***. EMNLP-IJCNLP 2019
June 2019	**Gated Convolutional Neural Networks for Domain Adaptation**, *Avinash Madasu and **Anvesh Rao Vijjini***. NLDB 2019
April 2019	**HindiRC: A Dataset for Reading Comprehension in Hindi**, ***Anvesh Rao Vijjini⋆**, Kaveri Anuranjana⋆ and Radhika Mamidi*. CICLing 2019
April 2019	**Effectiveness of Self Normalizing Neural Networks for Text Classification** , *Avinash Madasu and **Anvesh Rao Vijjini***. CICLing 2019
August 2018	**Twitter corpus of Resource-Scarce Languages for Sentiment Analysis and Multilingual Emoji Prediction**, *Nurendra Choudhary, Rajat Singh, **Anvesh Rao Vijjini** and Manish Shrivastava*. COLING 2018

Workshop Publications

April 2021	**Analyzing Curriculum Learning for Sentiment Analysis along Task Difficulty, Pacing and Visualization Axes**, ***Anvesh Rao Vijjini⋆**, Kaveri Anuranjana⋆ and Radhika Mamidi*. Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis (WASSA) at EACL 2021.
August 2019	**Hindi Question Generation Using Dependency Structures**, ***Anvesh Rao Vijjini⋆**, Kaveri Anuranjana⋆ and Radhika Mamidi*. Workshop on Humanizing AI (HAI) at IJCAI 2019.
August 2018	**Towards Enhancing Lexical Resource and Using Sense-annotations of OntoSenseNet for Sentiment Analysis**, *Sreekavitha Parupalli, **Anvesh Rao Vijjini** and Radhika Mamidi*. Workshop on Semantic Deep Learning (SemDeep-3) at COLING 2018.

Theses

MS Theses	**Towards Adapting Curriculum Learning for Sentiment Analysis: Challenges and Analyses** , ***Anvesh Rao Vijjini** and Radhika Mamidi*.