Saujas Vaduguru

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Education

2017-Present B.Tech. in Computer Science and M.S. (by Research) in Computational Linguistics
International Institute of Information Technology, Hyderabad *GPA: 9.46/10*

Research Experience

Present – May 2021 | **Summer Intern, Chandar Research Lab, Montreal Institute of Learning Algorithms, Remote**
Advisors: Sarath Chandar, Chinnadhurai Sankar, Prasanna Parthasarathi
- Part of the Mitacs Globalink Research Internship program
- Experimented with various continual learning settings for task-oriented dialogue
- Explored using language models in interactive settings

Continual Learning | Dialogue Systems | NLP

Present – May 2019 | **Undergraduate Researcher, Language Technologies Research Center, IIIT, Hyderabad**
Advisors: Monojit Choudhury, Dipti Misra Sharma
- Developing interpretable methods to perform complex reasoning on linguistic patterns based on a few examples
- Applying program synthesis tools for few-shot rule-learning

Program Synthesis | Phonology

Publications

Sample-efficient linguistic generalizations through program synthesis: Experiments with phonology problems
Saujas Vaduguru, Aalok Sathe, Monojit Choudhury, and Dipti Misra Sharma
SIGMORPHON @ ACL 2021

Selected Projects

Program Synthesis with Pragmatic Communication 2021
Advisor: Yewen (Evan) Pu
Using the Rational Speech Acts model to generate pragmatic specifications for program synthesis allowing for inferring programs from fewer examples.
Program Synthesis | Rational Speech Acts

Wikipedia Search Engine 2020
Information Retrieval and Extraction Course Project
Built a search engine to index and search a large Wikipedia corpus.
Information Retrieval

Incorporating Dependency Syntax into Transformer-Based Neural Machine Translation 2020
Natural Language Processing Applications Course Project
Using dependency grammars to add stronger syntax bias to Transformer-based NMT models.
NLP | Machine Translation

Discourse-based Sentence Representations for Hindi 2019
Natural Language Processing Course Project
Created discourse based representations for Hindi sentences using methods in *DisSent: Sentence Representation Learning from Explicit Discourse Relations* by Nie *et al.*
NLP

Teaching Experience

2020 | **Computational Lingusitics I, IIIT Hyderabad, *Instructor:* Prof. Dipti Misra Sharma**
- Course introducing students to computational methods in phonology, morphology, and syntax
- Designed and graded assignments
- Taught tutorial sessions

Activities

Panini Linguistics Olympiad 2018-Present

Co-chair of Problem Committee for Panini Linguistics Olympiad 2018-2021. Team leader for the Indian team at the International Linguistics Olympiad in 2018, 2019, and 2021.

Awards and Honours

Dean's List Award for Academic Performance 2020, 2018

Top 10% of cohort

Dean's Merit List Award for Academic Performance 2019

Top 20% of cohort

Honourable Mention, International Linguistics Olympiad 2015