Saujas Vaduguru

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Education

Starting 2022
Ph.D. in Language and Information Technologies
Language Technologies Institute, School of Computer Science, Carnegie Mellon University

2017–2022
B.Tech. in Computer Science and **M.S. (by Research) in Computational Linguistics**
International Institute of Information Technology (IIIT), Hyderabad
Advisors: Monojit Choudhury, Dipti Misra Sharma
Thesis: Program Synthesis for Linguistic Rules

Former Positions

2019–2022
Research Assistant, Language Technologies Research Center, *IIIT, Hyderabad*

- Developed program synthesis methods to learn rules for phonological stress placement from a small number of examples
- Designed various domain-specific languages to compare impact of specifying linguistic knowledge explicitly

Skills: C#, Python, Microsoft prose SDK

May–Aug 2021
Research Intern, Chandar Research Lab, *Mila*
Mentors: Sarath Chandar, Prasanna Parthasarathi

- Explored slot-incremental continual learning set-ups in dialogue state tracking (DST)
- Finetuned Transformer-based models for DST using various continual learning algorithms

Skills: Python, PyTorch, HuggingFace Transformers

Publications

[3] ***Stress Rules from Surface Forms: Experiments with Program Synthesis***
Saujas Vaduguru, Partho Sarthi, Monojit Choudhury, and Dipti Sharma
International Conference on Natural Language Processing (ICON), 2021

[2] ***Efficient Pragmatic Program Synthesis with Informative Specifications***
Saujas Vaduguru, Kevin Ellis, Yewen Pu
Workshop on Meaning in Context: Pragmatic Communication in Humans and Machines
35th Conference on Neural Information Processing Systems (NeurIPS), 2021
(oral presentation)

[1] ***Sample-efficient linguistic generalizations through program synthesis: Experiments with phonology problems***
Saujas Vaduguru, Aalok Sathe, Monojit Choudhury, and Dipti Sharma
Proceedings of the 18th SIGMORPHON Workshop on Computational Research in Phonetics, Phonology, and Morphology
The Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP), 2021

Honors and Awards

2021	Mɪᴛᴀᴄs Globalink Research Internship
2017–2021	Dean's List Award for Academic Performance
2015	Honourable Mention, International Linguistics Olympiad

Academic Service

Rᴇᴠɪᴇᴡᴇʀ: ICON 2021, NILLI@EMNLP 2021

Teaching Experience

Spring 2020	**Teaching Assistant**, Computational Linguistics I

Outreach

Pāṇini Linguistics Olympiad

- Co-chair of Problem Committee and Jury, and member of the Organizing Committee for the Indian national Linguistics Olympiad program from 2018–2021
- Team leader and coach for Indian team at the International Linguistics Olympiad in 2018, 2019, and 2021
- Lecturer at Joint Asian-Pacific Linguistics Training, 2021