# Saujas Vaduguru

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2017-Present

B.Tech. in Computer Science and M.S. (by Research) in Computational Linguistics INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY, HYDERABAD

GPA: 9.49/10

# RESEARCH EXPERIENCE

## August 2021 May 2021

## Summer Intern, Chandar Research Lab, MILA, QUEBEC, Remote

Advisors: Sarath Chandar, Prasanna Parthasarathi

- > Part of the Mitacs Globalink Research Internship program
- Experimented with various continual learning settings for task-oriented dialogue
- Exploring using pretrained language models to generate language to solve tasks in artificial worlds

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 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

### SLOT-INCREMENTAL CONTINUAL LEARNING FOR TASK-ORIENTED DIALOGUE

2021

ADVISORS: Sarath Chandar, Prasanna Parthasarathi, Chinnadhurai Sankar

Training language models for dialogue state tracking in a continual manner, where new slots to be tracked for the same dialogue domain are presented over time.

Continual Learning Dialogue Systems

#### 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

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.



# **₽** TEACHING EXPERIENCE

## Computational Lingusitics I, IIIT HYDERABAD, INSTRUCTOR: Dipti Misra Sharma

- Course introducing students to computational methods in phonology, morphology, and syntax
- > Designed and graded assignments
- > Taught tutorial sessions



#### 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.



# 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,

2015 INTERNATIONAL LINGUISTICS OLYMPIAD