Shruti Palaskar

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RESEARCH INTERESTS

Multimodal Machine Learning, Automatic Speech Recognition, Natural Language Processing

EDUCATION

2018-Current **Carnegie Mellon University,** *Pittsburgh, USA*
Ph.D., LTI, School of Computer Science

2016-2018 **Carnegie Mellon University,** *Pittsburgh, USA*
Master of Language Technologies, LTI, School of Computer Science

2012-2016 **Pune Institute of Computer Technology, University of Pune,** *India*
Bachelor of Engineering, Computer Engineering
Grade: First Class with Distinction

HONORS & AWARDS

AAAI'19 **Winner** of the Dialog State Tracking Challenge 7, Audio-Visual Scene Aware Dialog Track

Interspeech'18 **PhD student panelist** at the Young Female Researchers in Speech Workshop

CMLH 2018-19 Receipient of the **CMLH Fellowship in Digital Health**

CMU 2016-18 Recipient of the **LTI Graduate Fellowship**

Interspeech'17 **Student Scholar** at the Young Female Researchers in Speech Workshop

PUBLICATIONS

AAAI'19 DSTC7 (under review) "CMU Sinbad's Submission to the DSTC7 AVSD Track", Ramon Sanabria*, **Shruti Palaskar***, and Florian Metze

ICASSP'19 (under review) "Learned in Speech Recognition: Contextual Acoustic Word Embeddings", **Shruti Palaskar**, Vikas Raunak and Florian Metze

ICASSP'19 (under review) "Learning from Multiview Correlations in Open-Domain Videos", Nils Holzenberger*, **Shruti Palaskar***, Pranava Madhyastha, Raman Arora and Florian Metze

ICASSP'19 (under review) "Multimodal Grounding for Sequence-to-Sequence Speech Recognition", Ozan Caglayan, Ramon Sanabria, **Shruti Palaskar**, Loic Barrault and Florian Metze

NIPS ViGIL'19 **Spotlight** "Multimodal Abstractive Summarization for Open-Domain Videos", Jindrich Libovicky, **Shruti Palaskar**, Spandana Gella and Florian Metze

NIPS ViGIL'19 "How2: A Large-scale Dataset for Multimodal Language Understanding", Ramon Sanabria, Ozan Caglayan, **Shruti Palaskar**, Desmond Elliot, Loic Barrault, Lucia Specia and Florian Metze

SLT'18 "Acoustic-to-Word Recognition with Sequence-to-Sequence Models", **Shruti Palaskar** and Florian Metze

ICASSP'18 "End-to-End Multimodal Speech Recognition", **Shruti Palaskar***, Ramon Sanabria*, Florian Metze

ICASSP'18 "Linguistic Unit Discovery from Multimodal Inputs in Unwritten Languages", Odette Scharenborg,..., **Shruti Palaskar**,..., Emmanuel Dupoux

ICNLSSP'17 "Building an ASR System for a Low-resource Language Through the Adaptation of a High-resource Language ASR System: Preliminary Results", Odette Scharenborg, Francesco Ciannella, **Shruti Palaskar**, Alan Black, Florian Metze, Lucas Ondel, Mark Hasegawa-Johnson

Interspeech'17 "End-to-End Audio Visual Speech Recognition and Summarization", **Shruti Palaskar** and Florian Metze (Poster at YFRS Workshop)

arXiv "Combining LSTM and Latent Topic Modeling for Mortality Prediction", Yohan Jo, Lisa Lee, **Shruti Palaskar**

ONGOING & PAST RESEARCH

Sep'18-Current **Information Extraction from Speech Dialogs**, *Graduate Research Assistant*, *CMU*
Advisor: Prof. Florian Metze
- Developing direct speech-to-information extraction systems for medical conversations

May'17-Current **Multimodal Speech Recognition and Summarization**, *Graduate Research Assistant*, *CMU*
Advisor: Prof. Florian Metze
- Building multimodal models to jointly learn to recognize and summarize speech

Jan'18-Aug'18 **DARPA AIDA**, *Graduate Research Assistant*, *CMU*
Advisors: Prof. Florian Metze, Prof. Eduard Hovy
- Building multimodal speech recognition models for online inference with streaming data

PAST INTERNSHIPS

Jun'18-Aug'18 **Grounded Sequence-to-Sequence Transduction**, *Graduate Student Participant*
JSALT, JHU *Advisors: Prof. Lucia Specia, Prof. Florian Metze*
- Building better multimodal learning representations for speech recognition, summarization

Jun'17-Aug'17 **Multimodal Linguistic Unit Discovery**, *Graduate Student Participant*
JSALT, CMU *Advisors: Prof. Emmanuel Dupoux, Prof. Odette Scharenborg, Prof. Florian Metze*
- Worked on sub-unit adaptation from high to low resource languages for ASR

May'15-Jul'15 **Real-Time Motion Tracking**, *Innovation Engineer*
MIT Media Lab *Advisors: Dr. Hyunsung Park, Prof. Ramesh Raskar*
ReDx
- Collected chewing videos data for real-time detection of unilateral chewing and TMJ syndrome

Sep'15-Dec'15 **Statistical Machine Translation**, *Research Intern*
IIT Bombay *Advisor: Prof. Ganesh Ramakrishnan*
- Focused on generating correct constituent structure and word sense disambiguation

PROGRAMMING EXPERIENCE

Skills Python, PyTorch, TensorFlow, MATLAB, Lua, Java, C, C++, Bash

RELEVANT COURSES

CMU Topics in Deep Learning, Probabilistic Graphical Models, Speech Recognition and Understanding, Introduction to Machine Learning, Algorithms for NLP, Large Scale Multimedia Analysis, Computational Semantics

PICT Data Structures, Advanced Algorithms, Advanced Operating Systems, Databases, Computer Networks, Compilers, Parallel and Distributed Computing, NLP, Discrete Math, Signal Processing

TEACHING ASSISTANT & PROFESSIONAL SERVICE

Fall'18 TA for Speech Recognition and Understanding course taught by Prof. Florian Metze

Reviewer Reviewer for the Dialog State Tracking Challenge 7 Audio-Visual Scene Aware Track