Adithya Renduchintala

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RESEARCH INTERESTS

I am broadly interested in problems at the intersection of Machine Learning, Machine Translation, Natural Language Processing, User Modeling and Human Machine Interaction.

EDUCATION

PhD, Computer Science 2013 - Present
Johns Hopkins University, Baltimore, MD
Advisor: Philipp Koehn

MS, Computer Science, 2010 - 2012
University of Colorado, Boulder, CO

MS, Electrical Engineering, Arts Media and Engineering 2005-2008
Arizona State University, Tempe, AZ

BE, Electrical Engineering 2001-2005
Anna University, SRM Engineering College, Chennai, INDIA

PUBLICATIONS

The JHU/KyotoU Speech Translation System for IWSLT 2018
Hirofumi Inaguma, Xuan Zhang, Zhiqi Wang, Adithya Renduchintala, Shinji Watanabe and Kevin Duh. The International Workshop on Spoken Language Translation 2018 (IWSLT)

Multi-Modal Data Augmentation for End-to-End ASR.
Adithya Renduchintala, Shuoyang Ding, Matthew Wiesner and Shinji Watanabe, Interspeech 2018. Best Student Paper!

ESPnet: End-to-End Speech Processing Toolkit
Shinji Watanabe, Takaaki Hori, Shigeki Karita, Tomoki Hayashi, Jiro Nishitoba, Yuya Unno, Nelson Enrique Yalta Soplin, Jahn Heymann, Matthew Wiesner, Nanxin Chen, Adithya Renduchintala and Tsubasa Ochiai, Interspeech 2018.

Knowledge Tracing in Sequential Learning of Inflected Vocabulary
Adithya Renduchintala, Philipp Koehn and Jason Eisner, Conference on Computational Natural Language Learning (CoNLL), 2017.

User Modeling in Language Learning with Macaronic Texts
Adithya Renduchintala, Rebecca Knowles, Philipp Koehn, and Jason Eisner. Annual Meeting of the Association for Computational Linguistics (ACL) 2016.

Creating interactive macaronic interfaces for language learning
Adithya Renduchintala, Rebecca Knowles, Philipp Koehn, and Jason Eisner. Annual Meeting of the Association for Computational Linguistics (ACL) Demo Session 2016.

Analyzing learner understanding of novel L2 vocabulary
Rebecca Knowles, Adithya Renduchintala, Philipp Koehn, and Jason Eisner, Conference on Computational Natural Language Learning (CoNLL), 2016.

Algerian Arabic-French Code-Switched Corpus
Ryan Cotterell, Adithya Renduchintala, Naomi P. Saphra and Chris Callison-Burch. An LREC-2014 Workshop on Free/Open-Source Arabic Corpora and Corpora Processing Tools. 2014.

Using Machine Learning and HL7 LOINC DO for Classification of Clinical Documents.
Adithya Renduchintala, Amy Zhang, Thomas Polzin, G. Saadawi. American Medical Informatics Association (AMIA) 2013.

Collaborative Tagging and Persistent Audio Conversations
Ajita John, Shreeharsh Kelkar, Ed Peebles, Adithya Renduchintala, Doree Seligmann Web 2.0 and Social Software Workshop in Conjunction with ECSCW. 2007.

Designing for persistent Audio Conversations in the Enterprise
Adithya Renduchintala, Ajita John, Shreeharsh Kelkar, and Doree Duncan-Seligmann. Design for User Experience. 2007.

PREPRINTS

Character-Aware Decoder for Neural Machine Translation.
Adithya Renduchintala*, Pamela Shapiro*, Kevin Duh and Philipp Koehn. arXiv 2018

Low Resource Multi-modal Data Augmentation for End-to-End ASR.
Matthew Wiesner, Adithya Renduchintala, Shinji Watanabe, Chunxi Liu, Najim Dehak and Sanjeev Khudanpur. arXiv 2018

EXPERIENCE

Research Intern Summer 2017
Duolingo, Pittsburgh, PA
- Prototyped a Chatbot system that detects and corrects word-ordering errors.
- Explored word embedding schemes which are robust to spelling errors.

Software Engineer 2012 - 2013
M*Modal, Pittsburgh, PA
- Developed SVM based clinical document classification system
- Feature Engineering for statistical models for document preprocessing (Tokenization, Chunking and Entity Detection)

Software Developer 2008 - 2012
Rosetta Stone, Boulder, CO
- Designed, prototyped and evaluated speech recognition based games for language learning.
- Prototyped a image-concept relation visualization tool for second language vocabulary learning.

Research Scientist Intern Summer 2007
Avaya, Collaborative Applications Group, Lincroft, NJ
- Developed an interactive graph based visualization tool to explore and annotate conference calls in enterprises.

Research Assistant 2006-2008
Arizona State University, Situated Multimedia Systems Lab, Tempe, AZ
- Designed and prototyped systems for serendipitous interactions in distributed workplaces.

TEACHING

Lab Session: JSALT Summer School Summer 2018
Neural Machine Translation using MxNET

Teaching Assistant Spring 2016
Machine Translation
Prof. Koehn

Teaching Assistant Fall 2013
Intro. Programming for Scientists & Engineers
Prof. Selinski

* Equal contribution

CODING SKILLS

Advanced: Python, Java
Proficient: C/C++, Javascript, Jquery, NodeJs
Deep Learning Frameworks: PyTorch, Theano

COURSEWORK Natural Language Processing (Fall 2013), Graphical Models (Fall 2013), Machine Translation (Spring 2014), Algorithms (Spring 2014), Machine Learning (Fall 2014), Artificial Intelligence (Fall 2015)

Updated 10/29/2018