Adithya Renduchintala

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Interests

I am broadly interested in problems at the intersection of Machine Learning, Machine Translation, Natural Language Processing & User Modeling

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

Simple Construction of Mixed-Language Texts for Vocabulary Learning
Adithya Renduchintala, Philipp Koehn and Jason Eisner. Annual Meeting of the Association for Computational Linguistics (ACL) Workshop on Innovative Use of NLP for Building Educational Applications, 2019 (To Appear).

A Call for prudent choice of Subword Merge Operations
Shuoyang Ding, **Adithya Renduchintala**, and Kevin Duh. Machine Translation Summit 2019 (To Appear).

Character-Aware Decoder for Translation into Morphologically Rich Languages
Adithya Renduchintala*, Pamela Shapiro*, Kevin Duh and Philipp Koehn. Machine Translation Summit 2019 (To Appear).

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

* Equal contribution

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

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

Duolingo, Pittsburgh, PA **Summer 2017**
Research Intern
Prototyped a Chatbot system that detects and corrects word-ordering errors made by language learners. Explored spelling-error robustness of compositional word embeddings

M*Modal, Pittsburgh, PA **2012 - 2013**
Software Engineer
Developed SVM based clinical document classification system. Worked on feature engineering for statistical models (Document Classification, Entity Detection, Tokenization, Chunking)

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

Avaya, Lincrof NJ **Summer 2007**
Research Scientist Intern
Developed an interactive graph based visualization tool to explore and annotate conference calls in enterprises.

Arizona State University, Tempe AZ **2006-2008**
Research Assistant, Arts Media & Engineering
Designed and prototyped systems for serendipitous interactions in distributed workplaces.

Teaching

Neural Machine Translation Lab Session, JSALT Summer School — Summer 2018
Machine Translation, Teaching Assistant — Spring 2016
Intro. to Programming for Scientists & Engineers, Teaching Assistant — Fall 2013

Programming Advanced: Python (numpy, scipy, scikit-learn)
Proficient: Java, C/C++, Javascript, Jquery, NodeJs
Deep Learning Frameworks: PyTorch (Advanced), MxNet, Tensorflow
Deep Learning Toolkits: OpenNMT, Fairseq, ESPNet, Sockeye

Nationality Indian, Permanent US Resident

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