

# Adithya Renduchintala

adithya.r@gmail.com

[arendu.github.io](https://github.com/arendu)

<b>Interests</b>	I am broadly interested in problems involving sequence modeling in Natural Language Processing, Machine Translation and Speech Recognition.	
<b>Education</b>	<b>PhD, Computer Science</b>	<b>2013 - 2020</b>
	Johns Hopkins University, Baltimore, MD	
	Advisor: <a href="#">Philipp Koehn</a>	
	Committee: <a href="#">Philipp Koehn</a> , <a href="#">Jason Eisner</a> , <a href="#">Kevin Duh</a>	
	<b>MS, Computer Science</b>	<b>2010 - 2012</b>
	University of Colorado, Boulder, CO	
	Advisor: <a href="#">Jim Martin</a> (Non-Thesis)	
	<b>MS, Electrical Engineering, Arts Media and Engineering</b>	<b>2005-2008</b>
	Arizona State University, Tempe, AZ	
	Advisor: <a href="#">Winslow Burleson</a>	
<b>Experience</b>	<b>BE, Electrical Engineering</b>	<b>2001-2005</b>
	Anna University, SRM Engineering College, Chennai, India	
	<b>Facebook AI, Menlo Park, CA</b>	<b>2020-Present</b>
	Research Scientist	
	Working on problems related to Neural Machine Translation.	
	<b>Johns Hopkins University, Baltimore, MD</b>	<b>2013-2020</b>
	Research Assistant	
	Designed and evaluated AI foreign language teaching systems. Also worked on Machine Translation and End-to-End Speech Recognition.	
	<b>Duolingo, Pittsburgh, PA</b>	<b>Summer 2017</b>
	Research Intern	
	Prototyped a Chatbot system that detects and corrects spelling and word-ordering errors made by language learners.	
	<b>M*Modal, Pittsburgh, PA</b>	<b>2012-2013</b>
	NLP Engineer	
	Developed an SVM based clinical document classification system. Designed features for statistical models performing Document Classification, Entity Detection, Tokenization and Chunking.	
	<b>Rosetta Stone, Boulder, CO</b>	<b>2008-2012</b>
	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, Lincroft, 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.

## **Publications**

[Multilingual Neural Machine Translation with Deep Encoder and Multiple Shallow Decoders.](#)

Xiang Kong, **Adithya Renduchintala**, James Cross, Yuqing Tang, Jiatao Gu and Xian Li European Chapter of the Association for Computational Linguistics (EACL), 2021 (To Appear)

[Quality Estimation without Human-labeled Data.](#)

Yi-Lin Tuan, Ahmed El-Kishky, **Adithya Renduchintala**, Vishrav Chaudhary, Francisco Guzman, Lucia Specia European Chapter of the Association for Computational Linguistics (EACL), 2021 (To Appear)

[Machine Translation quality across demographic dialectal variation in Social Media.](#)

**Adithya Renduchintala** and Dmitriy Genzel. Proceedings of the 14th Conference of the Association for Machine Translation in the Americas (AMTA), MT User Track, 2020.

[An Exploratory Study on Multilingual Quality Estimation.](#)

Shuo Sun, Marina Fomicheva, Frédéric Blain, Vishrav Chaudhary, Ahmed El-Kishky, **Adithya Renduchintala**, Francisco Guzman and Lucia Specia. Asia-Pacific Chapter of the Association for Computational Linguistics (AACL-IJCNLP), 2020.

[Spelling-Aware Construction of Macaronic Texts for Teaching Foreign-Language Vocabulary.](#)

**Adithya Renduchintala**, Philipp Koehn and Jason Eisner. Empirical Methods in Natural Language Processing (EMNLP), 2019

[Simple Construction of Mixed-Language Texts for Vocabulary Learning](#)

**Adithya Renduchintala**, Philipp Koehn and Jason Eisner. Association for Computational Linguistics (ACL) Workshop on Innovative Use of NLP for Building Educational Applications (BEA), 2019.

[Pretraining by Backtranslation for End-to-End ASR in Low-Resource Settings.](#)

Matthew Wiesner, **Adithya Renduchintala**, Shinji Watanabe, Chunxi Li, Najim Dehak and Sanjeev Khudanpur, Interspeech 2019

[A Call for prudent choice of Subword Merge Operations.](#)

Shuoyang Ding, **Adithya Renduchintala**, and Kevin Duh. Machine Translation Summit 2019.

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

[Multi-Modal Data Augmentation for End-to-End ASR.](#)

**Adithya Renduchintala**, Shuoyang Ding, Matthew Wiesner and Shinji Watanabe, Interspeech 2018.

**Best Student Paper Award (3/700+)**

[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.

[The JHU/KyotoU Speech Translation System for IWSLT 2018.](#)

Hirofumi Inaguma, Xuan Zhang, Zhiqi Wang, **Adithya Renduchintala**, Shinji Watanabe and Kevin Duh. Workshop on Spoken Language Translation 2018 (IWSLT)

[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. Association for Computational Linguistics (ACL) 2016.

[Creating interactive macaronic interfaces for language learning.](#)

**Adithya Renduchintala**, Rebecca Knowles, Philipp Koehn, and Jason Eisner. 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.

[Creating Serendipitous Encounters in a Geographically Distributed Community.](#)

**Adithya Renduchintala**, Aisling Kelliher, and Hari Sundaram. HCM Workshop in Conjunction with ACM. 2006.

<b>Teaching</b>	<a href="#">Intro. to Human Language Technology</a> , Teaching Assistant	Fall, 2019
	<a href="#">Neural Machine Translation with MxNet</a> , JSALT	Summer 2018
	<a href="#">Machine Translation</a> , Teaching Assistant	Spring 2016
	Programming for Scientists & Engineers, Teaching Assistant	Fall 2013

<b>Programming</b>	Advanced: Python (numpy, scipy, scikit-learn)
	Proficient: Java, C/C++, Javascript, JQuery, NodeJs
	Deep Learning Frameworks: PyTorch (Advanced), MxNet, Tensorflow
	Deep Learning Toolkits: Fairseq, OpenNMT, ESPNet, Sockeye
	Other Toolkits: Moses, OpenFst

<b>Nationality</b>	Indian, Permanent US Resident
--------------------	-------------------------------

Updated 02/15/2021