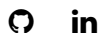


JOSH MEYER

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jrmeyer.github.io



I'm a PhD candidate passionate about machine learning and open-source technologies for low-resource languages.

Currently based in San Francisco.

EDUCATION

University of Arizona Ph.D. in Linguistics (focus: <i>computational linguistics</i>)	Expected 2019 <i>Tucson, AZ</i>
University of Arizona M.A. in Linguistics	May 2015 <i>Tucson, AZ</i>
Seton Hall University B.A. in Liberal Studies	May 2012 <i>South Orange, NJ</i>

INDUSTRY EXPERIENCE

Mozilla Machine Learning NSF-Sponsored Internship <i>Developing end-to-end Automatic Speech Recognition techniques with Transfer Learning and deep neural networks (i.e. DeepSpeech).</i>	October 2018 — Present
Various Companies Kaldi & ASR Consultant <i>Optimized Automatic Speech Recognition pipelines for various companies using the Kaldi toolkit.</i>	2016 — 2018

OPEN SOURCE WORK

Mozilla DeepSpeech	<i>Added Transfer Learning branch</i>	[Code]
NVDA	<i>Added Kyrgyz language to screen reader</i>	[Code]
eSpeak NG	<i>Added Kyrgyz language to speech synthesizer</i>	[Code]
Autotrace	<i>Created tools for tongue contour vizualization</i>	[Code]

RESEARCH EXPERIENCE

CNRS-LIMSI <i>Visiting Researcher</i>	July 2016 — July 2017 <i>Orsay, France</i>
DNN acoustic model adaptation and RNN text augmentation techniques	
American University of Central Asia <i>Visiting Research Scholar</i>	June 2015 — August 2015 <i>Bishkek, Kyrgyzstan</i>
Created a spoken corpus of the Kyrgyz language	
Arizona Phonological Imaging Lab <i>Research Assistant</i>	Spring 2015 <i>Tucson, AZ</i>
Developed software to process ultrasonic images	
American University of Central Asia <i>Visiting Research Fellow</i>	August 2013 — March 2014 <i>Bishkek, Kyrgyzstan</i>
Conducted acoustic-phonetic and phonological research	
Language Acquisition Research Center at Hunter CUNY <i>Research Assistant</i>	November 2011 — August 2012 <i>New York, NY</i>
Transcribed spontaneous speech; Aided in website construction	
KIT/NYU MEG Lab at NYU <i>Research Assistant</i>	May 2012 — August 2012 <i>New York, NY</i>
Aided in data analysis and processing	

GRANTS & AWARDS

NSF INTERN Grant <i>Approx. \$50,000</i>	2018 <i>National Science Foundation</i>
Chateaubriand STEM Fellowship €5,000	2016 <i>French Embassy to the United States of America</i>
GROW Travel Award \$5,000	2016 <i>National Science Foundation</i>
Graduate Research Fellowship <i>Approx. \$102,000 + \$36,000 (tuition)</i>	2015-2018 <i>National Science Foundation</i>
Visiting Research Fellowship \$5,000	August 2013 — March 2014 <i>Central Asian Studies Institute, American University of Central Asia</i>
Regents Scholarship \$111,140 (<i>tuition</i>)	August 2008 — May 2012 <i>Seton Hall University</i>

PUBLICATIONS

- (2018) Meyer, Joshua. **Unsupervised Task Discovery for Multi-Task Acoustic Modeling.** Proceedings of the Machine Learning in Speech and Language Processing Workshop. [Poster] [Paper]
- (2018) Meyer, Joshua, and Kloehn, Nick, and Carnie, Andrew. **The Field is not the Lab, and the Lab is not the Field: Experimental linguistics and endangered language communities.** *Insights from Practices in Community-Based Research: From Theory To Practice Around The Globe*, ISBN: 978-3-11-052701-8 Edited by Shannon Bischoff and Carmen Jany. Mouton De Gruyter
- (2018) Bekmurzaev, Nurbek, and Lottholz, Philipp, and Meyer, Joshua. **Navigating the safety implications of doing research and being researched in Kyrgyzstan: cooperation, networks and framing.** *Central Asian Survey*, 37:1, 100-118, DOI: 10.1080/02634937.2017.1419165
- (2017) Meyer, Joshua. **Development of a Kyrgyz Speech Synthesizer: A Demonstration of the Ossian Frontend and Merlin Neural Network Speech Synthesis Toolkit.** *Proceedings of The 5th International Conference on Computer Processing of Turkic Languages*, Vol. 1, 130-136.
- (2016) Lottholz, Philipp, and Meyer, Joshua. **Friend or Foreign Agent? On the Limits of Field Research in Post-Soviet Kyrgyzstan.** *Exeter Central Asian Studies Network*.
- (2016) Meyer, Joshua. **Conducting Linguistic Fieldwork in Kyrgyzstan.** *Arizona Anthropologist*, Vol. 27.

PRESENTATIONS

- Language Technologies in Central Asia: A Survey.** Joint ESCAS-CESS Conference at the American University of Central Asia. 2017, Bishkek
- w/ Quam, Carolyn **Predicting Language Dominance in Kyrgyz-Russian Bilinguals.** Arizona Linguistics Circle 9. 2015, Tucson
- w/ Quam, Carolyn, and Bever, Thomas **Phonological processing in Kyrgyz-Russian bilinguals.** The Miniconference on Metrical Structure: Acquisition and processing. 2014, Utrecht
- The Kyrgyzstan corpus project: Building a language resource unique to Kyrgyzstan and available to all.** CASI Public Seminar at the American University of Central Asia. 2014, Bishkek
- Now you hear it, now you dont: Phonological processing in Kyrgyz-Russian bilinguals.** CASI Public Seminar at the American University of Central Asia. 2013, Bishkek
- Psycholinguistics: Thinking about language differently.** Lecture conducted at The Plattform at Werkstatttraum. 2013, Berlin

EVENT ORGANIZAION

w/ Anguelina Popova, Fran Tyers **Kyrgyz Voice Technology Hackathon** [LINK] Attended by undergraduate students as well as professional developers 2019, *American University of Central Asia (Bishkek)*

w/ Fran Tyers **DeepSpeech & Common Voice Tutorial** Fifth International Workshop on Computational Linguistics for Uralic Languages 2019, *University of Tartu (Tartu)*

w/ Fran Tyers **Speech Synthesis Workshop: Hands-on with Merlin & Ossian** [LINK] Delivered to Faculty and Graduate Students in the Computational Linguistics Department 2018, *Higher School of Economics (Moscow)*

w/ Fran Tyers **Speech Recognition Workshop: Hands-on with Kaldi & DeepSpeech** [LINK] Delivered to Faculty and Graduate Students in the Computational Linguistics Department 2017, *Higher School of Economics (Moscow)*

TECHNICAL STRENGTHS

Computer Languages	Python, Bash, MATLAB, Perl, R
Other	Kaldi, TensorFlow, Linux, Amazon Web Services, git & GitHub

LANGUAGE SKILLS

Native	English
Fluent	Russian, French
Some Knowledge	German, Spanish, Italian, Kyrgyz

TUTORIALS

[TensorFlow]	[Kaldi]	[CMU-Sphinx]	[Merlin]	[eSpeak NG]	[Praat]
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