



Marzieh Razavi

Education

Mar. 2013 - PhD, École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, Electrical

August 2017 Engineering.

Supervised by Professor Hervé Bourlard and Dr. Mathew Magimai.-Doss

Sep. 2010 - M.Sc., Simon Fraser University, Vancouver, Canada, Computing Science.

Aug. 2012 Supervised by Professor Anoop Sarkar

Overall GPA: 3.6/4

Sep. 2005 - B.Sc., Sharif University of Technology, Tehran, Iran, Computer Engineering.

Sep. 2009 Overall GPA: 17.22/20

Selected Professional Experience

Aug. 2017 - Post-doctoral Researcher, Idiap Research Institute, Martigny, Switzerland.

- Present Working on a sign language assessment project with the aim of developing an automatic sign language recognition and assessment system for Swiss German sign language learners.
 - Co-supervising a PhD student
 - o Technologies: Python, HTK toolkit, Tensorflow, Keras.

Mar. 2013 - Doctoral Researcher, Idiap Research Institute, Martigny, Switzerland.

- Jun. 2017 Worked on acoustic data-driven grapheme-to-phoneme conversion, pronunciation lexicon development using automatically derived units, and under-resourced language speech recognition.
 - Technologies: Python, HTK toolkit, Quicknet, Linux Shell scripting.

Sep. 2010 - Research Assistant, Natural Language Lab - Simon Fraser University, Vancouver, Dec. 2012 Canada.

- Worked on ensembling diverse clustering-based dependency parsers in MSTParser framework.
- Applied domain-adaptation techniques to improve parsing of radiology reports.
- Technologies: Java, Python, Linux Shell scripting.

Sep. 2010 – **Teaching Assistant**, Simon Fraser University, Vancouver, Canada.

Jun. 2012 • Computer architecture course.

Mar. 2009 - **R&D Engineer**, ASR Gooyesh Pardaz Ltd., Tehran, Iran.

Jan. 2010 o Designed a robust natural language understanding component for a flight information system.

Jul. 2008 - **R&D Intern**, ASR Gooyesh Pardaz Ltd., Tehran, Iran.

Sep. 2008 • Designed a robust parser for human-machine dialogue for banking systems.

Selected Skills

languages

Programming Java, Python, C++,R

Maching Tensorflow, Keras Learning & AI

Operating Linux, Mac OS, MS Windows Systems

Human Quicknet, HTK Language Technologies

Languages

Persian Native English Full professional proficiency

French Elementary proficiency Arabic Elementary proficiency

Selected Publications

- Feb. 2018 Towards weakly supervised acoustic subword unit discovery and lexicon development using hidden Markov models, *Marzieh Razavi*; Ramya Rasipuram and Mathew Magimai.-Doss, in **Speech Communication**.
- Feb. 2017 A Posterior-Based Multi-Stream Formulation for G2P Conversion, *Marzieh Razavi* and Mathew Magimai.-Doss, in **Signal Processing Letters**.
- Sep. 2016 Improving under-resourced language ASR through latent subword unit space discovery, Marzieh Razavi and Mathew Magimai.-Doss, in INTERSPEECH, San Francisco, USA.
- Apr. 2016 Acoustic data-driven grapheme-to-phoneme conversion in the probabilistic lexical modeling framework, *Marzieh Razavi*; Ramya Rasipuram and Mathew Magimai.-Doss, in **Speech Communication**.
- Nov. 2015 Pronunciation Lexicon Development for Under-Resourced Languages Using Automatically Derived Subword Units: A Case Study on Scottish Gaelic, *Marzieh Razavi*; Ramya Rasipuram and Mathew Magimai.-Doss, winner of a Best Student Paper Award in Language and Technology Conference (LTC), Poznan, Poland.
- Apr. 2015 An HMM-Based Formalism for Automatic Subword Unit Derivation and Pronunciation Generation, *Marzieh Razavi* and Mathew Magimai.-Doss, in **IEEE ICASSP**, Brisbane, Australia.
- Apr. 2015 Integrated Pronunciation Learning for Automatic Speech Recognition Using Probabilistic Lexical Modeling, Ramya Rasipuram; *Marzieh Razavi* and Mathew Magimai.-Doss, in **IEEE ICASSP**, Brisbane, Asutralia.
- Sep. 2014 On Recognition of Non-Native Speech Using Probabilistic Lexical Model, *Marzieh Razavi* and Mathew Magimai.-Doss, in **INTERSPEECH**, Singapore city, Singapore.
- Apr. 2014 On Modeling Context-dependent Clustered States: Comparing HMM/GMM, Hybrid HMM/ANN And KL-HMM Approaches, *Marzieh Razavi*; Ramya Rasipuram and Mathew Magimai.-Doss, in **IEEE ICASSP**, Florence, Italy.
- Dec. 2013 Probabilistic Lexical Modeling and Unsupervised Training for Zero-Resourced ASR, Ramya Rasipuram; *Marzieh Razavi* and Mathew Magimai.-Doss, in **IEEE ASRU**, Olomouc, Czech Republic.
- Jun. 2011 An Ensemble Model that Combines Syntactic and Semantic Clustering for Discriminative Dependency Parsing, Gholamreza Haffari; Marzieh Razavi and Anoop Sarkar, in ACL, Portland, USA.

Honors & Awards

Nov. 2015 **Granted the Best Student Paper Award**, Language and Technology Conference, Poznan, Poland.

Jun. 2014 Awarded the ISCA Student Travel Grant to Attend INTERSPEECH 2014, International Speech communication Association (ISCA), Lausanne, Switzerland.

Sep. 2011 Recipient of SFU Graduate Fellowship, Simon Fraser University, Vancouver, Canada.

Summer 2005 Ranked 258 th , Among more than 300000 students in the nationwide university entrance exam, Tehran, Iran.

——— Activities

Professional ISCA, IEEE and IEEE SPS student member. Activities

Extracurricular Poetry, Literature and Calligraphy. Activities