# Ehsan Hosseini-Asl

#### PERSONAL DATA

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#### EDUCATION

2012-2016 PhD in Electrical and Computer Engineering

University of Louisville, USA

Research: Machine Learning/Deep Learning

Dissertation: Sparse Feature Learning for Image Analysis in Segmentation,

Classification and Disease Diagnosis

Advisor: Dr. Ayman EL-BAZ

#### RESEARCH EXPERIENCE

MARCH 2017-PRESENT

Salesforce Al Research, San Francisco Bay Area
Senior Research Scientist - Deep learning, NLP, Dialogue, Speech, Computer Vision

#### SELECTED CONFERENCE PAPERS

- Ehsan Hosseini-Asl, Wenhao Liu, Caimin Xiong, "A Generative Language Model For Few-Shot Aspect-Based Sentiment Analysis", Findings of NAACL, 2022
- Tianxing He, B. MacCann, Caiming Xiong, E. Hosseini-Asl, "Joint Energy-based Model Training for Better Calibrated Natural Language Understanding Models", EACL, 2021
- -E. Hosseini-Asl, B. MacCann, CS. Wu, S. Yavuz, R. Socher, "A Simple Language Model For Task Oriented Dialogue", NeurIPS (Spotlight), 2020
- E. Hosseini-Asl, Y. Zhou, C. Xiong, R. Socher, "Augmented Cyclic Adversarial Learning for Low Resource Domain Adaptation", ICLR 2019
  - CS. Wu, A. Madotto, E. Hosseini-Asl, , C. Xiong, R. Socher, P. Fung, "Transferable Multi-Domain State Generator for Task-Oriented Dialogue Systems", ACL 2019, Outstaing Paper Award, 2019
- E. Hosseini-Asl, Y. Zhou, C. Xiong, R. Socher, "A Multi-Discriminator Cyclegan for Unsupervised Non-parallel Speech Domain Adaptation", INTERSPEECH 2018
   E. Nouri, E. Hosseini-Asl, "Toward Scalable Neural Dialogue State Tracking", NeurIPS 2018, 2nd Conversational AI worshop, 2018

## **SELECTED JOURNALS**

- E. Hosseini-Asl, M., Ghazal, A., Mahmoud, A., Aslantas, A.M., Shalaby, M.F., Casanova, G.N., Barnes, G., Gimel'farb, R., Keynton and A., El-Baz, "Alzheimer's disease diagnostics by a 3D deeply supervised adaptable convolutional network." Frontiers in bioscience (Landmark edition), 23, p.584., 2018
- 2015 E. Hosseini-Asl, J. M. Zurada, O. Nasraoui, "Deep Learning of Part-based Representation of Data Using Sparse Autoencoders with Nonnegativity Constraints", Neural Networks and Learning Systems, IEEE Trans. on, vol.PP, no.99, pp.1-13, 2015.
  - E. Hosseini-Asl, J. M. Zurada, Georgy Gimel'farb, and A. El-Baz, "3D Lung Segmentation Using Incremental Constrained Nonnegative Matrix Factorization," Biomedical Engineering, IEEE Trans. on, vol.PP, no.99, pp.1-1, 2015.

### Honors and Awards

- 2020 NeurIPS 2020 spotlight paper
- 2019 ACL 2019 Outstanding Paper Award
  Best Paper Award (cross-submission), ACL workshop on "NLP for Conversational AI"
- The Best and Outstanding PhD Dissertation Award (John M. Houchens Prize) School of Interdisciplinary and Graduate Studies, University of Louisville
- 2016 Graduate Dean's Citation School of Interdisciplinary and Graduate Studies, University of Louisville
- 2015 Graduate Student Research grant from IEEE Computational Intelligence Society, "Part-based Representation of Data In Deep Learning Models"

## **CONFERENCE PUBLICATIONS**

- M. Ismail, G. Barnes, M. Nitzken, A. E. Switala, A. Shalaby, E. Hosseini-Asl, M. Casanova, R. Keynton A. El-Baz, "A New Deep Learning Based CAD system for Early Diagnosis of Autism Using Structural MRI", submitted to International Symposium on Biomedical Imaging, (ISBI), 2017.
- M. Shehata et al., "A new non-invasive approach for early classification of renal rejection types using diffusion-weighted MRI," 2016 IEEE International Conference on Image Processing (ICIP), Phoenix, AZ, 2016, pp. 136-140.
  - **E. Hosseini-Asl**, R. Keynton, and A. El-Baz, "Alzheimer's Disease Diagnosis by Adaptation of 3D Convolutional Network", Image Processing (ICIP), 2016 IEEE Int. Conference on, pp. 126-130, 2016.
  - I. Reda, A. Shalaby, M. Abou El-Ghar, F. Khalifa, M. Elmogy, A. Aboulfotouh, E. Hosseini-Asl, A. El-Baz, and R. Keynton, "A New NMF-Autoencoder Based CAD System For Early Diagnosis of Prostate Cancer", in Biomedical Imaging (ISBI), 13th IEEE Int. Symposium on, pp. 1237-1240, 2016.
- E. Hosseini-Asl, and J. M. Zurada, and Ayman El-baz, "Automatic Segmentation of Pathological Lung Using Incremental Nonnegative Matrix Factorization", in Image Processing (ICIP), 2015 IEEE Int. Conference on, Quebec City, Canada, September 27-30, pp.3111-3115, 2015.
- E. Hosseini-Asl, and J. M. Zurada, and Ayman El-baz, "Lung Segmentation Based on Nonnegative Matrix Factorization," in Image Processing (ICIP), 2014 IEEE Int. Conference on, Paris, France, Oct 2014, pp. 877-881
- 2009 **Hossaini-asl, E.**; Shahbazian, M. "Nonlinear dynamic system control using wavelet neural network based on sampling theory", IEEE International Conference on Systems, Man and Cybernetics, SMC 2009, Pages: 4502 4507, 2009