

# Arman Afrasiyabi

Ph.D. Candidate  
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## (a) Education & Training

- Université Laval and Mila–Quebec AI Institute  
Ph.D. in Electrical and Computer Engineering (2017-now)  
Advisors: [Jean-François Lalonde](#) and [Christian Gagné](#)
- Middle East Technical University  
Research and Teaching Assistant in Computer Engineering (2015-2016)  
Masters in Bioelectrical Engineering (2013-2015)  
Advisor: [Fatoş T. Yarman Vural](#)
- Azad University-Shabestar  
Bachelor in Computer Engineering (2005-2009)

## (b) Publications

1. Arman Afrasiyabi, Jean-François Lalonde, and Christian Gagné, Mixture-based feature space learning for few-shot image classification, *International Conference on Computer Vision (ICCV)*, (2021).
2. Arman Afrasiyabi, Jean-François Lalonde, and Christian Gagné, Associative alignment for few-shot image classification, in *European Conference on Computer Vision (ECCV)*, **spotlight (5% acceptance rate)** (Springer, 2020).
3. Arman Afrasiyabi, Diaa Badawi, Baris Nasir, Ozan Yildi, Fatos T Yarman Vural, and A Enis Çetin, Non-euclidean vector product for neural networks, in *International Conference on Acoustics, Speech and Signal Processing (ICASSP)* (IEEE, 2018).
4. Arman Afrasiyabi, Baris Nasir, Ozan Yildiz, Fatos T Yarman Vural, and A Enis Cetin, An energy efficient additive neural network, in *25th Signal Processing and Communications Applications Conference (SIU)* (IEEE, 2017).
5. Arman Afrasiyabi, Itir Onal, and Fatos T Yarman Vural, A sparse temporal mesh model for brain decoding, in *IEEE 15th International Conference on Cognitive Informatics & Cognitive Computing (ICCI\* CC)*. Presented at **Stanford University** (IEEE, 2016).
6. Arman Afrasiyabi, Itir Onal, and Fatos T Yarman Vural, Effect of voxel selection on temporal mesh model for brain decoding, in *24th Signal Processing and Communication Application Conference (SIU)* (IEEE, 2016).

### (c) Scholarships

- Otis-Lalonde scholarship in computer vision (2021)
- Mitacs, NSERC Canada scholarships (2018-2021)
- Tübitak scholarship (2014-2017)

### (d) Expertise

- Machine learning and pattern recognition
- Computer Vision
- Deep learning
  - Meta-learning and transfer learning
  - Unsupervised representation (self-supervised) learning

### (e) Experiences & Languages

#### • Accepted Events

- “Mixture-based feature space learning for few-shot image classification”, Montreal AI Symposium 2021 (**oral** presentation).
- Deep learning and reinforcement learning summer school, CIFAR-MILA 2020.
- “Associative alignment for few-shot image classification”, Montreal AI Symposium 2020 (poster presentation).

#### • Research Assistants

- Learning from limited data (2017, now)
- Hierarchical representation and transfer learning using deep learning on the brain (2016-2017)
- Multi-layered cognitive learning model (2015-2017)
- Local voxel networks for modeling and classification of brain activity during cognitive processing, using brain signals (2014-2015)

#### • Teaching Assistant

- Deep Learning, (CEng 783; Fall 2016)
- Pattern Recognition (CEng 564; Spring 2015)
- Data Structures (CEng 213; Spring 2016)

#### • Languages

English (Fluent), Azerbaijani (Native), Turkish (Fluent), Persian (National)

### (f) Presentations

- *Mixture-based feature space learning for few-shot image classification* in ICCV 2021.
- *Associative alignment for few-shot image classification* in ECCV 2020.
- *Advances in few-shot learning* in Université Laval, Seminar, 2020.
- *Neural Turing Machines: NTM and DNC* in Université Laval, Seminar, 2018.
- *Deep learning and visualization techniques* in METU Image-Lab. 2017.