Imtiaz Masud Ziko

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Education

May 2016 – July 2020	**PhD., Machine Learning, École de Technologie Supérieure (ETS)**, Montréal, Canada. Thesis title: Flexible and Scalable Models for Clustering and Few-Shot Learning. External committee member: Jean-Christophe Pesquet, University Paris-Saclay, Inria.
Sept 2012 – Oct 2014	**MSc. Norwegian University of Science and Technology**, **University of Granada** and **University Jean Monnet**. Erasmus Mundus masters in Color in Informatics and Media Technology (CIMET) specializing in computer vision.

Employment History

Jan 2015 – Dec 2015	**Lecturer.** Computer Science Department, American International University-Bangladesh. Courses: C/C++, Algorithms, Computer Graphics, Computer vision and pattern recognition.
Jan 2014 – Jul 2014	**Research Intern.** Hubert Curien Laboratory – UMR CNRS 5516, France. Research topic: Subspace learning for Bag of Words (BOW) model.
Oct 2010 – Dec 2010	**Software Developer Intern** Right Brain Solution Ltd, Bangladesh. Project: CRM ticket managment system using PHP (Codeigniter) and MySql.

Publications

1. Boudiaf, M., Rony, J., **Ziko**, **I. M.**, Granger, E., Pedersoli, M., Piantanida, P., & Ayed, I. B. (2020). Metric learning: Cross-entropy vs. pairwise losses [Spotlight]. *European Conference on Computer Vision (ECCV)*. 🔗 https://arxiv.org/pdf/2003.08983.pdf

2. **Ziko**, **I. M.**, Dolz, J., Granger, E., & Ayed, I. B. (2020). Laplacian regularized few-shot learning. *International Conference on Machine Learning (ICML)*. 🔗 https://arxiv.org/pdf/2006.15486.pdf

3. **Ziko**, **I. M.**, Granger, E., Yuan, J., & Ayed, I. B. (2020). Variational fair clustering.
🔗 https://arxiv.org/pdf/1906.08207.pdf

4. **Ziko**, **I. M.**, Granger, E., & Ayed, I. B. (2018). Scalable laplacian k-modes [Spotlight]. *Neural Information Processing Systems (NeurIPS)*.
🔗 https://papers.nips.cc/paper/8208-scalable-laplacian-k-modes.pdf

5. **Ziko**, **I. M.**, Beigpour, S., & Hardeberg, J. Y. (2014). Design and creation of a multi-illuminant scene image dataset. *International Conference on Image and Signal Processing (ICISP)*.
🔗 https://link.springer.com/chapter/10.1007/978-3-319-07998-1_61

Skills and Interest

Coding	Python, C++, MATLAB,
Deep Learning Libraries	PyTorch, Tensorflow

Skills and Interest (continued)

Misc. tools	∎	PyCharm, Streamlit, Git version control, Inkscape, LaTeX, Numpy, Pandas, Numba, Multiprocessing, Cython, Scipy, Opengl, OpenMP, Scikit-learn, Cuda kernel, MatplotLib.
Databases	∎	MySQL, SQLite.
Web Dev	∎	HTML, CSS, PHP, JavaScript, Codeigniter.
Languages	∎	English, French (basic), Bengali (native).
Organizer	∎	IPTA 2017 (ETS), ICT FEST 2011 (IUT)
Review activity	∎	MIDL 2020, MAIS 2020, ICCV 2019, IPTA 2018, 2017.
Research Interests	∎	Unsupervised/Semi-supervised Learning, Constraint Clustering, Few-shot Learning, Fairness in learning, Domain Adaptation, Metric Learning, Scalable and efficient learning models, Convex optimization, Variational inference models.
Interests and Hobbies	∎	Reading, Guitar playing, Sports – soccer, cricket, pool, badminton etc., traveling, hiking.

Projects

2020	∎	Few-shot learning. Published in ICML 2020. Github: `https://github.com/imtiazziko/LaplacianShot`
	∎	Metric Learning. Published in ECCV 2020 as spotlight. Github: `https://github.com/jeromerony/dml_cross_entropy`
2019	∎	Flexible and scalable clustering method with fairness constraints for ethical decisions. Github: `https://github.com/imtiazziko/Variational-Fair-Clustering`
2018	∎	Scalable joint graph clustering and density mode estimation for large scale applications. Published in Neurips 2018 as spotlight. Github: `https://github.com/imtiazziko/SLK`
2014	∎	Spectral subspace clustering for visual dictionary creation in the context of image classification. Hubert Curien Laboratory, France.
	∎	Design and Creation of a Multi-Illuminant Scene Image Dataset for Color Constancy Research. Published in ICISP 2014. The Norwegian Colour and Visual Computing Laboratory - NTNU, Norway.
	∎	Waste sorting using multi-spectral imaging and machine learning. In collaboration with ZenRobotics (Finland), University of Eastern Finland and Norwegian University of Science and Technology.

Awards

2020	∎	Nominated for **ETS Award of Excellence** for the best doctoral dissertation.
2016 – 2020	∎	**PHD fellowship**, ETS.
2012 – 2014	∎	**Erasmus Mundus Category A scholarship** of an amount of 48,000 Euros for Master program by European Commission, selected among 500 candidates.

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Talks

July 2020	🔖	*Laplacian Regularized Few-shot Learning* at ICML 2020 (Virtual).
Dec 2019	🔖	*Fairness in unsupervised Learning* at CAÉC ÉTS, Montréal.
Dec 2018	🔖	*Scalable Laplacian K-modes* at Neurips 2018, Montréal.

References

Available on Request