Mete Kemertas

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Education

University of Toronto, Vector Institute
PhD · Computer Science · Sep 2020 - Present
· GPA: 4.00/4.00. Focus in reinforcement learning and optimal transport.
· Supervisors: Allan D. Jepson, Amir-massoud Farahmand.

University of Toronto
MScAC · Computer Science · Sep 2016 - Dec 2017
· GPA: 4.00/4.00. Focus in machine learning and natural language processing.

McGill University
BEng. · Electrical Engineering · Sep 2013 - Dec 2015
· GPA: 3.58/4.00. Minor degree: Software Engineering.

Istanbul Technical University
BSc. · Electronics and Communication Engineering · Sep 2011 - June 2013
· GPA: 3.69/4.00 (2nd in a class of 200+). Transferred to McGill University.

Industry Experience

Samsung AI Centre · *Toronto, ON*
PhD Student Researcher (part-time) · Apr 2021 - Sep 2022
Senior Research Engineer · Mar 2020 - Sep 2020
Research Engineer · May 2018 - Mar 2020
· Research in machine learning and vision-language integration.
· Served as technical lead/co-lead for various research projects.
· Multiple publications at leading AI venues and 4 patents granted.

Tealbook Inc. · *Toronto, ON*
Machine Learning Engineer · May 2017 - May 2018
· Removed significant data licensing costs by applying machine
  learning to produce a large database of suppliers around the world.
· Designed and developed a recommendation engine for supplier discovery.

Ormuco Inc. · *Montreal, QC*
Software Developer · May 2016 - Sep 2016
· Developed the backend of a notification and messaging system.
· Improved system performance by optimizing database queries
  and redesigning the caching system on the server side.

Ericsson · *Montreal, QC*
Software Development Intern · May 2015 - Sep 2015
· Participated in the development of a global scale messaging product.

Selected Publications	**Maximum entropy model correction in reinforcement learning.** A. Rakhsha, **M. Kemertas**, M. Ghavamzadeh, A.M. Farahmand. *International Conference on Learning Representations (ICLR)*, 2024. **Approximate policy iteration with bisimulation metrics.** **M. Kemertas**, A. Jepson. *Transactions on Machine Learning Research (TMLR)*, 2022. **Towards robust bisimulation metric learning.** **M. Kemertas**, T.T. Aumentado-Armstrong (equal contribution). *Advances in Neural Information Processing Systems (NeurIPS)*, 2021. **RankMI: A mutual information maximizing ranking loss.** **M. Kemertas**, L. Pishdad, K. Derpanis, and A. Fazly. *Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.
Preprints	**Efficient and accurate optimal transport with mirror descent and conjugate gradients.** **M. Kemertas**, A. Jepson, A.M. Farahmand. *Preprint*, 2023. URL
Other Publications	**Realizing efficient on-device language-based image retrieval.** Z. Hu, **M. Kemertas**, L. Xiao, C. Phillips, I. Mohomed, A. Fazly. *ACM Transactions on Multimedia Computing, Communications, and Applications*, 2024. **CrispSearch: low-latency on-device language-based image retrieval.** Z. Hu*, L. Xiao*, **M. Kemertas***, C. Phillips, I. Mohomed, A. Fazly. *ACM Multimedia Systems Conference*, 2022 (*equal contribution). **Dependency parsing with structure preserving embeddings.** Á. Kádár, L. Xiao, **M. Kemertas**, F. Fancellu, A. Jepson and A. Fazly. *Conference of the European Chapter of the Association for Computational Linguistics (EACL)*, 2021. **Dynamic scheduling of MPI-based distributed deep learning training jobs.** T. Capes, V. Raheja, **M. Kemertas**, and I. Mohomed. *MLSys Workshop at Neural Information Processing Systems (NeurIPS)*, 2018.
Patents	· US11645323 · Coarse-to-fine multimodal gallery search system · US11430088 · Method and apparatus for data anonymization · US11580392 · Apparatus for deep representation learning and method thereof · US11693706 · Dynamic scheduling of distributed deep learning training jobs

Awards	**NSERC CGS D Scholarship, May 2022** Doctoral scholarship for $105,000 awarded to highest-scoring PGS D applicants. **Mitacs Accelerate Grant, May 2017** Awarded funding ($30,000) for an 8-month applied research project.
Community	· Referee for ICLR '25, ICML '23, ICLR '23, NeurIPS '22, ICML '22, CVPR '22...
Prog. Languages	· **Python** (expert) · **Java, C, C++, C#** (proficient) · **JavaScript, Swift, MATLAB, R** (prior experience)
Tools	**PyTorch, TensorFlow, Git, Apache Spark, Unity, Apache Beam**