Mete Kemertas

Email: kemertas@cs.toronto.edu Website: metekemertas.github.io

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
B.Eng. · Electrical Engineering · Sep 2013 - Dec 2015
· GPA: 3.58/4.00. Minor degree: Software Engineering.
· Transferred from Istanbul Technical University (Sep 2011 - Jul 2013).

Publications

Approximate policy iteration with bisimulation metrics.
M. Kemertas, A. Jepson.
Transactions on Machine Learning Research (TMLR), 2022.

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).

Towards robust bisimulation metric learning.
M. Kemertas, T.T. Aumentado-Armstrong (equal contribution).
Advances in Neural Information Processing Systems (NeurIPS), 2021.

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.

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.

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.

Preprints

Efficient and accurate optimal transport with mirror descent and conjugate gradients.
M. Kemertas, A. Jepson, Amir-massoud Farahmand. arXiv URL

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

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 the world's suppliers.
· 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.

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 for $30,000 for an 8-month applied research project.

Community

· Referee for ICML '23, ICLR '23, NeurIPS '22, ICML '22, CVPR '22, ICCV '21.

Prog. Languages

· **Python** (expert)
· **Java, C, C++, C#** (proficient)
· **JavaScript, Swift, MATLAB, R** (prior experience)

Tools

PyTorch, TensorFlow, Git, Apache Spark, Unity, Apache Beam