Mete Kemertas

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Address: 1008-1080 Bay Street, Toronto, ON M5S 0A5

Education

University of Toronto

 $PhD \cdot Computer Science \cdot Sep 2020 - Present$

· Focus in reinforcement learning and computer vision.

University of Toronto

MScAC · Computer Science · Sep 2016 - Dec 2017

· Focus in machine learning and natural language processing.

McGill University

B.Eng. · Electrical Engineering · Sep 2013 - Dec 2015

- · Minor degree: Software Engineering.
- · Served as a TA for MATH 270: Applied Linear Algebra for two semesters.

Istanbul Technical University

B.Sc. · Electronics and Communication Engineering · Sep 2011 - Jun 2013

- · Transferred to McGill University.
- \cdot Ranked 2nd in class before transfer.

Publications

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

Trusted approximate policy iteration with bisimulation metrics.

M. Kemertas, A. Jepson.

URL https://arxiv.org/abs/2202.02881, 2022.

Patent Applications

- \cdot US17/072905 \cdot Coarse-to-fine Multimodal Gallery Search System with Attention-based Neural Network Models
- \cdot US16/725717 \cdot Feature Scrubbing: Anonymize Images on Home Devices
- · US16/805051 · A Method for Deep Representation Learning
- · US16/690999 · A System and Method of Batch Size Adaptive Workload Scheduler

Industry Experience

Samsung AI Centre · Toronto, ON

 $\frac{\text{PhD Intern (part-time)} \cdot \text{Apr 2021 - Present}}{\text{Senior Research Engineer} \cdot \text{Mar 2020 - Sep 2020}}{\text{Research Engineer} \cdot \text{May 2018 - Mar 2020}}$

- · Research in machine learning and vision-language integration.
- · Served as technical lead/co-lead for various research projects.
- · Multiple publications at leading AI venues.
- · 4 patent applications pending.

Tealbook Inc. · Toronto, ON

Machine Learning Engineer · May 2017 - May 2018

- · First ML engineer of the company.
- · 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. \cdot Montreal, QC

Software Developer \cdot 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.

 $Ericsson \cdot Montreal, QC$

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 CVIU (Elsevier), ICCV '21, CVPR '22, ICML '22, NeurIPS '22.

Prog.

· Python (expert)

Languages

· Java, C, C++, C# (proficient)

· JavaScript, Swift, MATLAB, R (prior experience)

Tools

 $PyTorch,\,TensorFlow,\,keras,\,scikit\text{-}learn,\,pandas,\,Git,$

Apache Spark, Unity, Apache Beam, Android Studio, neo4j