# Mete Kemertas

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## Education

#### University of Toronto

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

· Focus in reinforcement learning and computer vision.

#### University of Toronto

 $MScAC \cdot Computer Science \cdot Sep 2016 - Dec 2017$ 

- · Focus in machine learning and natural language processing.
- · Worked as a research assistant at the Munk School of Global Affairs on applications of machine learning to macroeconomics research.

#### McGill University

B.Eng.  $\cdot$  Electrical Engineering  $\cdot$  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.
- · 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.

Conf. of the European Chapter of the Assoc. 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.

## Patent Applications

- $\cdot$  US17/072905  $\cdot$  Coarse-to-fine Multimodal Gallery Search System
- with Attention-based Neural Network Models
- · US16/725717 · 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

PhD Intern (part-time) · Apr 2021 - Present

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.
- · 4 patent applications pending.

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 using multimodal representation learning.

Ormuco Inc.  $\cdot$  Montreal, QC

Software Developer  $\cdot$  May 2016 - Sep 2016

- · Developed the backend of a notification and messaging system.
- · Solved bugs in the backend of a cloud computing platform.
- · Improved system performance by optimizing database queries and redesigning the caching system on the server side.

 $\mathbf{Ericsson} \cdot Montreal, \ QC$ 

Software Development Intern  $\cdot$  May 2015 - Sep 2015

· Participated in the development of a global scale messaging product.

## Awards

## Mitacs Accelerate Grant, May 2017

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

Prog.

· Python (expert)

Languages

- · Java, C, C++, C# (proficient)
- · JavaScript, Swift, MATLAB, R (prior experience)

Tools

PyTorch, TensorFlow, keras, scikit-learn, pandas, Git, Apache Spark, Unity, Apache Beam, Android Studio, neo4j