

# Mete Kemertas

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## Education

### University of Toronto

PhD · Computer Science · 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.  
· 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. Jepsen 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. Jepsen.  
URL <https://arxiv.org/abs/2202.02881>, 2022.

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| Patent Applications | <ul style="list-style-type: none"> <li>· US17/072905 · Coarse-to-fine Multimodal Gallery Search System with Attention-based Neural Network Models</li> <li>· US16/725717 · Feature Scrubbing: Anonymize Images on Home Devices</li> <li>· US16/805051 · A Method for Deep Representation Learning</li> <li>· US16/690999 · A System and Method of Batch Size Adaptive Workload Scheduler</li> </ul>  |
| Industry Experience | <p><b>Samsung AI Centre</b> · <i>Toronto, ON</i><br/> <u>PhD Intern (part-time)</u> · Apr 2021 - Present<br/> <u>Senior Research Engineer</u> · Mar 2020 - Sep 2020<br/> <u>Research Engineer</u> · May 2018 - Mar 2020</p> <ul style="list-style-type: none"> <li>· Research in machine learning and vision-language integration.</li> <li>· Served as technical lead/co-lead for various research projects.</li> <li>· Multiple publications at leading AI venues.</li> <li>· 4 patent applications pending.</li> </ul> <p><b>Tealbook Inc.</b> · <i>Toronto, ON</i><br/> <u>Machine Learning Engineer</u> · May 2017 - May 2018</p> <ul style="list-style-type: none"> <li>· First ML engineer of the company.</li> <li>· Removed significant data licensing costs by applying machine learning to produce a large database of the world's suppliers.</li> <li>· Designed and developed a recommendation engine for supplier discovery using multimodal representation learning.</li> </ul> <p><b>Ormucio Inc.</b> · <i>Montreal, QC</i><br/> <u>Software Developer</u> · May 2016 - Sep 2016</p> <ul style="list-style-type: none"> <li>· Developed the backend of a notification and messaging system.</li> <li>· Solved bugs in the backend of a cloud computing platform.</li> <li>· Improved system performance by optimizing database queries and redesigning the caching system on the server side.</li> </ul> <p><b>Ericsson</b> · <i>Montreal, QC</i><br/> <u>Software Development Intern</u> · May 2015 - Sep 2015</p> <ul style="list-style-type: none"> <li>· Participated in the development of a global scale messaging product.</li> </ul> |
| Awards              | <p><b>Mitacs Accelerate Grant, May 2017</b><br/> Awarded funding for \$30,000 for an 8-month applied research project.</p>   |
| Prog. Languages     | <ul style="list-style-type: none"> <li>· <b>Python</b> (expert)</li> <li>· <b>Java, C, C++, C#</b> (proficient)</li> <li>· <b>JavaScript, Swift, MATLAB, R</b> (prior experience)</li> </ul>   |
| Tools               | <p><b>PyTorch, TensorFlow, keras, scikit-learn, pandas, Git, Apache Spark, Unity, Apache Beam, Android Studio, neo4j</b></p>   |