

Zheda Mai

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🌐: <https://zheda-mai.github.io>

🐙: <https://github.com/RaptorMai>

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| EDUCATION | <p>M.A.Sc. Information Engineering, University of Toronto 2018-2021</p> <ul style="list-style-type: none">• Research areas: Continual Learning in Computer Vision, Recommender System• Advisor: Professor Scott Sanner• GPA: 4.0/4.0 <p>B.A.Sc. Engineering Science, University of Toronto 2012-2017</p> <ul style="list-style-type: none">• Electrical Engineering Major with Engineering Business Minor |
| PUBLICATIONS | <p>[1] Zheda Mai*, Jihwan Jeong*, Dongsub Shim*, Scott Sanner, Hyunwoo Kim, Jongseong Jang. Online Class-Incremental Continual Learning with Adversarial Shapley Value. In <i>Proceedings of the AAAI Conference on Artificial Intelligence (AAAI)</i>, 2021.</p> <p>[2] Zheda Mai, Ruiwen Li, Jihwan Jeong, David Quispe, Hyunwoo Kim, Scott Sanner. Online Continual Learning in Image Classification: An Empirical Survey. In <i>Neurocomputing</i>, 2021.</p> <p>[3] Zheda Mai, Ruiwen Li, Hyunwoo Kim, Scott Sanner. Supervised Contrastive Replay: Revisiting the Nearest Class Mean Classifier in Online Class-Incremental Continual Learning. In <i>Proceedings of the Conference on Computer Vision and Pattern Recognition (CVPR) Workshops</i>, 2021.</p> <p>[4] Zheda Mai, Hyunwoo Kim, Jihwan Jeong, Scott Sanner. Batch-level Experience Replay with Review for Continual Learning. In <i>Proceedings of the Conference on Computer Vision and Pattern Recognition (CVPR) Workshops</i>, 2020.</p> <p>[5] Zheda Mai*, Ga Wu*, Kai Luo, Scott Sanner. Attentive Autoencoders for Multifaceted Preference Learning in One-class Collaborative Filtering. In <i>Proceedings of International Conference on Data Mining (ICDM) Workshops</i>, 2020.</p> <p>[6] Tianshu Shen, Zheda Mai, Ga Wu, Scott Sanner. Distributional Contrastive Embedding for Clarification based Conversational Critiquing. In <i>Proceedings of International World Wide Web Conferences (WWW)</i>, 2022.</p> <p>[7] Vincenzo Lomonaco, ..., Zheda Mai, etc. CVPR 2020 Continual Learning in Computer Vision Competition: Approaches, Results, Current Challenges and Future Directions. In <i>Artificial Intelligence Journal (AIJ)</i>, 2021.</p> <p>[8] Tianshu Shen, Jiaru Li, Mohamed Reda Bouadjenek, Zheda Mai, Scott Sanner. Unintended Bias in Language Model-driven Conversational Recommendation. Submitted to <i>Special Interest Group on Information Retrieval (SIGIR)</i>, 2022.</p> <p>[9] JinPeng Zhou, Ga Wu, Zheda Mai, Scott Sanner. Noise Contrastive Estimation for Autoencoding-based Collaborative Filtering. Preprint.</p> |
| AWARDS | <ul style="list-style-type: none">• 1st place of the CLVision Continual Learning challenge at CVPR 2020 2020 Zheda Mai, Scott Sanner. Batch-level Experience Replay with Review for Continual Learning• 4th place of the CLVision Continual Learning challenge at CVPR 2021 2021 Zheda Mai. Supervised Contrastive Replay for Continual Learning |
| EXPERIENCE | <p>Data Scientist, Optimy AI, Canada 2021-now</p> <ul style="list-style-type: none">• Developed machine learning models for customer engagement prediction, high-valued customer identification, purchase likelihood prediction and dynamic product recommender systems.• Designed and implemented business intelligence analytic solutions in Power BI.• Deployed real-time clickstream data pipeline with Snowplow in AWS. |

Machine Learning Engineer Intern, Pitney Bowes, Canada May 2019 - Oct. 2019

- Built a map style extraction model with CNN and multi-task learning in TensorFlow and Keras.
- Developed MapBasic scripts to generate and augment 500k raster map data.
- Conducted error analysis and hyperparameter tuning to improve accuracy from 60% to 89%.

Software Engineer Intern, AMD, Canada 2015-2016

- Automated Lint, Synthesis and other design verification tools using Python for faster design cycles.
- Provided supports for various design verification tools for a team with over 120 Engineers globally.

Software Engineer, KapCha, Canada 2017-2018

- Designed and developed the back-end and front-end of an on-demand professional photographer booking platform in Python (Django), PostgreSQL, jQuery, Bootstrap and AWS S3.
- Assisted software deployment in AWS with Elastic Beanstalk.

TEACHING

Teaching Assistant for

- APS1070: Foundations of Data Analytics and Machine Learning (2019, 2020)
- MIE451: Decision Support Systems (2019, 2020)
- MIE1628: Big Data Science (2020)

PROFESSIONAL SERVICE

I am a journal reviewer for

- Artificial Intelligence (AIJ)
- Neurocomputing
- Information Fusion
- Frontiers in Artificial Intelligence

TALKS

- Continual Learning in Image Classification. Vector Institute.

July 2020

SKILLS

Techniques: Python, SQL, Git, LaTeX, AWS, PySpark, JavaScript

Machine Learning Tools: PyTorch, Keras, TensorFlow, NumPy, Pandas, SciPy, scikit-learn