Mengye Ren – Curriculum Vitæ

CONTACT INFORMATION	60 5th Ave, Rm 508 New York, NY 10011-8868, USA

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Email: `mengye@cs.nyu.edu`
Website: `https://mengyeren.com`

RESEARCH INTERESTS

Areas: Machine learning, computer vision, meta learning, representation learning, few-shot learning, brain & cognitively inspired learning, robot learning, self-driving vehicles.

My key research question is: how do we enable human-like, agent-based machine intelligence to continually learn, adapt, and reason in naturalistic environments? Towards this goal of building a more general and flexible AI, my research centers on developing *representation learning* and *meta-learning* algorithms.

EDUCATION

University of Toronto

Department of Computer Science   2017/01 – 2021/10
Ph.D., Supervisors: Richard Zemel and Raquel Urtasun
Thesis: "Open World Machine Learning with Limited Labeled Data"
Committee: Roger Grosse, Geoffrey Hinton, Yee Whye Teh

Department of Computer Science   2015/09 – 2017/01
M.Sc., Supervisor: Richard Zemel

Department of Engineering Science, ECE Option   2011/09 – 2015/06
BASc, CGPA 3.90/4.00, with high honours

PROFESSIONAL EXPERIENCE

New York University, New York, NY, USA
Assistant Professor of Computer Science and Data Science   2022/09 – Present
Google Brain, Toronto, ON, Canada
Visiting Faculty Researcher   2022/01 – 2022/09
Waabi Innovation, Toronto, ON, Canada
Senior Researcher II   2021/03 – 2021/12
Uber ATG, Toronto, ON, Canada
Senior Research Scientist I   2018/09 – 2021/02
Research Scientist II   2017/05 – 2018/09
Twitter, Cambridge, MA, USA
Research Intern   2016/06 – 2016/08
Google, Mountain View, CA, USA
Research Intern in Google Brain and Image Understanding   2015/06 – 2015/08
SWE Intern in StreetView   2014/06 – 2014/08
Microsoft, Redmond, WA, USA
SDET Intern in Visual Studio   2013/06 – 2013/08
SDET Intern in Visual Studio   2012/06 – 2012/08

TEACHING

New York University
- DS-GA 1003: Machine Learning   2023 Spring

Vector Institute
- Deep Learning II   2020 Fall

University of Toronto
- CSC 411: Machine Learning and Data Mining   2019 Winter

PEER-REVIEWED CONFERENCE PUBLICATIONS

(*=equal contribution)

2023

C1 **Mengye Ren**, Simon Kornblith, Renjie Liao, Geoffrey Hinton. Scaling forward gradient with local losses. In *11th International Conference on Learning Representations (ICLR)*, 2023.

C2 Matt Jones, Tyler R. Scott, **Mengye Ren**, Gamaleldin F. Elsayed, Katherine Hermann, David Mayo, Michael C. Mozer. Learning in temporally structured environments. In *11th International Conference on Learning Representations (ICLR)*, 2023.

C3 Lunjun Zhang, Anqi Joyce Yang, Yuwen Xiong, Sergio Casas, Bin Yang, **Mengye Ren**, Raquel Urtasun. Towards unsupervised object detection from LiDAR point clouds. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2023.

2022

C4 Chris Zhang*, Runsheng Guo*, Wenyuan Zeng*, Yuwen Xiong, Binbin Dai, Rui Hu, **Mengye Ren**, Raquel Urtasun. Rethinking closed-loop training for autonomous driving. In *18th European Conference on Computer Vision (ECCV)*, Tel-Aviv, Israel, 2022.

2021

C5 Yuwen Xiong, **Mengye Ren**, Wenyuan Zeng, Raquel Urtasun. Self-supervised representation learning from flow equivariance. In *International Conference on Computer Vision (ICCV)*, 2021.

C6 James Tu*, Tsun-Hsuan Wang*, Jingkang Wang, Sivabalan Manivasagam, **Mengye Ren**, Raquel Urtasun. Adversarial attacks on multi-agent communication. In *International Conference on Computer Vision (ICCV)*, 2021.

C7 Sean Segal*, Nishanth Kumar*, Sergio Casas, Wenyuan Zeng, **Mengye Ren**, Jingkang Wang, Raquel Urtasun. Just label what you need: Fine-grained active selection for perception and prediction through partially labeled scenes. In *Conference on Robot Learning (CoRL)*, London, United Kingdom, 2021.

C8 James Tu, Huichen Li, Xinchen Yan, **Mengye Ren**, Yun Chen, Ming Liang, Eilyan Bitar, Ersin Yumer, Raquel Urtasun. Exploring adversarial robustness of multi-sensor perception systems in self driving. In *Conference on Robot Learning (CoRL)*, London, United Kingdom, 2021.

C9 Alexander Wang*, **Mengye Ren***, Richard S. Zemel. SketchEmbedNet: Learning novel concepts by imitating drawings. In *38th International Conference on Machine Learning (ICML)*, 2021.

C10 **Mengye Ren**, Michael L. Iuzzolino, Michael C. Mozer, Richard S. Zemel. Wandering within a world: Online contextualized few-shot learning. In *9th International Conference on Learning Representations (ICLR)*, 2021.

C11 James Lucas, **Mengye Ren**, Irene Kameni, Toniann Pitassi, Richard S. Zemel. Theoretical bounds on estimation error for meta learning. In *9th International Conference on Learning Representations (ICLR)*, 2021.

C12 Bob Wei*, **Mengye Ren***, Wenyuan Zeng, Ming Liang, Bin Yang, Raquel Urtasun. Perceive, attend and drive: Learning spatial attention for safe self-driving. In *IEEE International Conference on Robotics and Automation (ICRA)*, Xi'an, China, 2021. (**oral**)

C13 Shuhan Tan*, Kelvin Wong*, Shenlong Wang, Sivabalan Manivasagam, **Mengye Ren**, Raquel Urtasun. SceneGen: Learning to simulate realistic traffic scenes. *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

C14 Jingkang Wang, Ava Pun, James Tu, Abbas Sadat, Sergio Casas, Sivabalan Manivasagam, **Mengye Ren**, Raquel Urtasun. AdvSim: Generating safety-critical scenarios for self-driving vehicles. *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2021.

2020

C15 Yuwen Xiong, **Mengye Ren**, Raquel Urtasun. LoCo: Local contrastive representation learning. In *Advances in Neural Information Processing Systems 33 (NeurIPS)*, Vancouver, British Columbia, Canada, 2020.

C16 Nicholas Vadivelu, **Mengye Ren**, James Tu, Jingkang Wang, Raquel Urtasun. Learning to communicate and correct pose errors. In *Conference on Robot Learning (CoRL)*, Cambridge, Massachusetts, USA, 2020.

C17 Lingyun (Luke) Li, Bin Yang, Ming Liang, Wenyuan Zeng, **Mengye Ren**, Sean Segal, Raquel Urtasun. End-to-end contextual perception and prediction with interaction transformer. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Las Vegas, Nevada, USA, 2020. (**oral**)

C18 Abbas Sadat*, Sergio Casas Romero*, **Mengye Ren**, Xinyu Wu, Pranaab Dhawan, Raquel Urtasun. Perceive, predict, and plan: Safe motion planning through interpretable semantic representations. In *16th European Conference on Computer Vision (ECCV)*, Glasgow, United Kingdom, 2020.

C19 Quinlan Sykora*, **Mengye Ren***, Raquel Urtasun. Multi-agent routing value iteration network. In *37th International Conference on Machine Learning (ICML)*, Vienna, Austria, 2020.

C20 James Tu, **Mengye Ren**, Sivabalan Manivasagam, Ming Liang, Bin Yang, Richard Du, Frank Cheng, Raquel Urtasun. Physically realizable adversarial examples for LiDAR object detection. In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Seattle, Washington, USA, 2020.

2019

C21 **Mengye Ren**, Renjie Liao, Ethan Fetaya, Richard S. Zemel. Incremental few-shot learning with attention attractor networks. In *Advances in Neural Information Processing Systems 32 (NeurIPS)*, Vancouver, British Columbia, Canada, 2019.

C22 Kelvin Wong, Shenlong Wang, **Mengye Ren**, Ming Liang, Raquel Urtasun. Identifying unknown instances for autonomous driving. In *Conference on Robot Learning (CoRL)*, Osaka, Japan, 2019. (**spotlight**)

C23 Abbas Sadat*, **Mengye Ren***, Andrei Pokrovsky, Yen-Chen Lin, Ersin Yumer, Raquel Urtasun. Jointly learnable behavior and trajectory planner for self-driving vehicles. In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Macau, China, 2019. (**oral**)

C24 Chris Zhang, **Mengye Ren**, Raquel Urtasun. Graph hypernetworks for neural architecture search. In *7th International Conference on Learning Representations (ICLR)*, New Orleans, Louisiana, USA, 2019.

2018

C25 **Mengye Ren**, Wenyuan Zeng, Bin Yang, Raquel Urtasun. Learning to reweight examples for robust deep learning. In *35th International Conference on Machine Learning (ICML)*, Stockholm, Sweden, 2018.

C26 **Mengye Ren***, Andrei Pokrovsky*, Bin Yang*, Raquel Urtasun. SBNet: Sparse blocks network for fast inference. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Salt Lake City, Utah, USA, 2018. (**spotlight**)

C27 **Mengye Ren**, Eleni Triantafillou*, Sachin Ravi*, Jake Snell, Kevin Swersky, Joshua B. Tenenbaum, Hugo Larochelle, Richard S. Zemel. Meta-learning for semi-supervised few-shot classification. In *6th International Conference on Learning Representations (ICLR)*, Vancouver, British Columbia, Canada, 2018.

C28 Yuhuai Wu*, **Mengye Ren***, Renjie Liao, Roger B. Grosse. Understanding short-horizon bias in meta optimization. In *6th International Conference on Learning Representations (ICLR)*, Vancouver, British Columbia, Canada, 2018.

2017

C29 Aidan N. Gomez*, **Mengye Ren***, Raquel Urtasun, Roger B. Grosse. The reversible residual network: Backpropagation without storing activations. In *Advances in Neural Information Processing Systems 30 (NIPS)*, Long Beach, California, USA, 2017.

C30 **Mengye Ren**, Richard S. Zemel. End-to-end instance segmentation with recurrent attention. In *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, Honolulu, Hawaii, USA, 2017. (**spotlight**)

C31 **Mengye Ren***, Renjie Liao*, Raquel Urtasun, Fabian H. Sinz, Richard S. Zemel. Normalizing the normalizers: Comparing and extending network normalization schemes. In *5th International Conference on Learning Representations (ICLR)*, Toulon, France, 2017.

2015

C32 **Mengye Ren**, Ryan Kiros, Richard S. Zemel. Exploring models and data for image question answering. In *Advances in Neural Information Processing Systems 28 (NIPS)*, Montréal, Québec, Canada, 2015.

PEER-REVIEWED
WORKSHOP PAPERS

2022

W1 Andrew J. Nam*, **Mengye Ren***, Chelsea Finn, James L. McClelland. Learning to reason with relational abstractions. In *2nd Workshop on MATH-AI at NeurIPS*, 2022.

W2 Matt Jones, Tyler R. Scott, Gamaleldin F. Elsayed, **Mengye Ren**, Katherine Hermann, David Mayo, Michael C. Mozer. Neural network online training with sensitivity to multiscale temporal structure. In *Memory in Artificial and Real Intelligence Workshop at NeurIPS*, 2022.

2020

W3 **Mengye Ren***, Eleni Triantafillou*, Kuan-Chieh Wang*, James Lucas*, Jake Snell, Xaq Pitkow, Andreas S. Tolias, Richard S. Zemel. Flexible few-shot learning of contextual similarity. In *NeurIPS Meta-Learning Workshop*, Vancouver, BC, Canada, 2020.

W4 Laleh Seyyed-Kalantari, Karsten Roth, **Mengye Ren**, Parsa Torabian, Joseph P. Cohen, Marzyeh Ghassemi. Multi-label incremental few-shot learning for medical image pathology classifiers. In *Medical Imaging Meets NeurIPS Workshop*, Vancouver, BC, Canada, 2020.

W5 **Mengye Ren**, Michael L. Iuzzolino, Michael C. Mozer, Richard S. Zemel. Wandering within a world: Online contextualized few-shot learning. In *ICML Continual Learning Workshop & Lifelong Learning Workshop & Workshop on Learning in Artificial Open Worlds*, Vienna, Austria, 2020. (**oral**)

W6 Jingkang Wang*, **Mengye Ren***, Ilija Bogunovic, Yuwen Xiong, Raquel Urtasun. Cost-efficient online hyperparameter optimization. In *ICML RealML Workshop*, Vienna, Austria, 2020.

2019

W7 James Lucas, **Mengye Ren**, Richard S. Zemel. Information-theoretic limitations on novel task generalization. In *NeurIPS Workshop on Machine Learning with Guarantees*, Vancouver British Columbia, Canada, 2019. (**oral**)

W8 Yuwen Xiong*, **Mengye Ren***, Renjie Liao, Kelvin Wong, Raquel Urtasun. Deformable filter convolution for point cloud reasoning. *arXiv preprint arXiv:1907.13079*. In *NeurIPS Workshop on Sets & Partitions*, Vancouver, British Columbia, Canada, 2019.

2018

W9 **Mengye Ren**, Renjie Liao, Ethan Fetaya, Richard S. Zemel. Incremental few-shot learning with attention attractor networks. In *NeurIPS Meta-Learning Workshop*, Montréal, Québec, Canada, 2018.

W10 Chris Zhang, **Mengye Ren**, Raquel Urtasun. Graph hypernetworks for neural architecture search. In *NeurIPS Meta-Learning Workshop*, Montréal, Québec, Canada, 2018.

2017

W11 **Mengye Ren**, Eleni Triantafillou*, Sachin Ravi*, Jake Snell, Kevin Swersky, Joshua B. Tenenbaum, Hugo Larochelle, Richard S. Zemel. Meta-learning for semi-supervised few-shot classification. In *NIPS Meta-Learning Workshop & Learning with Limited Data Workshop*, Long Beach, California, USA, 2017.

W12 Yuhuai Wu*, **Mengye Ren***, Renjie Liao, Roger B. Grosse. Understanding short-horizon bias in meta optimization. In *NIPS Meta-Learning Workshop*, Long Beach, California, USA, 2017.

2015

W13 **Mengye Ren**, Ryan Kiros, Richard Zemel. Exploring models and data for image question answering. In *ICML Deep Learning Workshop*, Lille, France, 2015. (**oral**)

PREPRINTS & TECH REPORTS

R1 Andrew J. Nam*, **Mengye Ren***, Chelsea Finn, James L. McClelland. Learning to reason with relational abstractions. *arXiv preprint arXiv:2210.02615*, 2022.

R2 Renjie Liao, Simon Kornblith, **Mengye Ren**, David J. Fleet, Geoffrey Hinton. Gaussian-Bernoulli RBMs without tears. *arXiv preprint arXiv:2210.10318*, 2022.

R3 **Mengye Ren**, Tyler R. Scott, Michael L. Iuzzolino, Michael C. Mozer, Richard Zemel. Online unsupervised learning of visual representations and categories. *arXiv preprint arXiv:2109.05675*, 2021.

R4 **Mengye Ren***, Eleni Triantafillou*, Kuan-Chieh Wang*, James Lucas*, Jake Snell, Xaq Pitkow, Andreas S. Tolias, Richard S. Zemel. Flexible few-shot learning of contextual similarity. *arXiv preprint arXiv:2012.05895*, 2020.

R5 Yuwen Xiong*, **Mengye Ren***, Raquel Urtasun. Learning to remember from a multi-task teacher. *arXiv preprint arXiv:1910.04650*, 2019.

PATENTS

P1 Raquel Urtasun, Kelvin Ka Wing Wong, Shenlong Wang, **Mengye Ren**, Ming Liang. Systems and methods for identifying unknown instances, US 11,475,675 B2, *US Patent*, 2022.

P2 Raquel Urtasun, **Mengye Ren**, Andrei Pokrovsky, Bin Yang. Sparse convolutional neural networks, US 11,061,402 B2, *US Patent*, 2021.

AWARDS & HONORS

• NSERC Postdoctoral Fellowship, $90,000 CAD (declined)	2021 – 2023
• Facebook Fellowship Finalist (91 out of 1876 PhD applicants worldwide)	2020
• NSERC Alexander Graham Bell Scholarship, $105,000 CAD	2018 – 2021
• NVIDIA Research Pioneer Award	2018
• NVIDIA Research Pioneer Award	2017
• NIPS 2017 Travel Award $800 USD	2017
• ICLR 2017 Travel Award $1,250 USD	2017
• MLSS 2015 Kyoto Travel Support ¥140,000 JPY	2015
• U of T Quantathon 2nd Place $5,000 CAD	2015
• U of T Undergraduate Mathematics Competition, Honourable Mention	2015
• Wallberg Undergraduate Scholarship $1,500 CAD	2014
• International 5th place in Windward AI Challenge, 1st in U of T	2014
• Dean's List for all semesters in undergraduate studies	2011 – 2015
• Entrance Scholarship from the University of Toronto $5,000 CAD	2011
• Meritorious Award in Mathematical Contest of Modeling (MCM)	2011

PROFESSIONAL SERVICE	*Area Chair:*	
	• NeurIPS Workshop on Meta-Learning (MetaLearn)	2020 - 2022
	• AutoML	2022

Journal Reviewer:
- Journal of Machine Learning Research (JMLR)
- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- IEEE Transactions on Image Processing (TIP)
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- IEEE Transactions on Computational Imaging (TCI)
- Neural Networks
- Machine Learning
- Optimization Methods and Software

Conference Reviewer:

• Conference on Neural Information Processing Systems (NeurIPS)	2016 – 2022
• International Conference on Machine Learning (ICML)	2017 – 2023
• International Conference on Learning Representations (ICLR)	2018 – 2023
• Conference on Computer Vision and Pattern Recognition (CVPR)	2018 – 2023
• International Conference on Computer Vision (ICCV)	2019 – 2023
• European Conference on Computer Vision (ECCV)	2020
• International Conference on Robotics and Automation (ICRA)	2021
• Conference on Lifelong Learning Agents (CoLLAs)	2022
• International Conference on Intelligent Robots and Systems (IROS)	2020
• Association for the Advancement of Artificial Intelligence Conference (AAAI)	2018
• Uncertainty in Artificial Intelligence (UAI)	2018

Workshop Organizer

• ICLR 2023 Workshop on Scene Representations for Autonomous Driving	2023

Seminar Organizer:

• Self-Supervised Learning Weekly Seminars (with E. Triantafillou)	2021 – 2022
• Meta-Learning Weekly Seminars (with E. Triantafillou)	2019 – 2021
• Uber ATG R&D Weekly Paper Reading Seminars	2018 – 2019

OPEN SOURCE SOFTWARES	• Forward-mode automatic differentiation for TensorFlow. GitHub: `https://github.com/renmengye/tensorflow-forward-ad` • DeepDashboard: Real-time web-based training visualizer. GitHub: `https://github.com/renmengye/deep-dashboard`

INVITED TALKS

2022

T1 Meta-learning within a lifetime. NeurIPS 2022 MetaLearn Workshop, Invited Talk. New Orleans, Louisiana, USA. Dec 2022.

T2 Biologically plausible learning using local activity perturbation. NYU CDS Lunch Seminar. New York, New York, USA. Oct 2022.

T3 Visual learning in the open world. 19th Conference on Vision and Robotics (CRV), Invited Symposium. Toronto, Ontario, Canada. Jun 2022.

2021

T4 Visual learning in the open world. University of Oxford. Oxford, UK. Nov 2021.

T5 Visual learning in the open world. Google Brain. Toronto, Ontario, Canada. Nov 2021.

T6 Visual learning in the open world. Stanford University. Stanford, California, USA. Oct 2021.

T7 Steps towards making machine learning more natural. École Polytechnique Fédérale de Lausanne. Lausanne, Switzerland. Apr 2021.

T8 Steps towards making machine learning more natural. University of Michigan. Ann Arbor, Michigan, USA. Mar 2021.

T9 Steps towards making machine learning more natural. Université de Montréal. Montréal, Québec, Canada. Mar 2021.

T10 Steps towards making machine learning more natural. University of North Carolina, Chapel Hill. Chapel Hill, North Carolina, USA. Mar 2021.

T11 Steps towards making machine learning more natural. University of Chicago. Chicago, Illinois, USA. Mar 2021.

T12 Steps towards making machine learning more natural. University of British Columbia. Vancouver, British Columbia, Canada. Mar 2021.

T13 Steps towards making machine learning more natural. University of Waterloo. Waterloo, Ontario, Canada. Mar 2021.

T14 Steps towards making machine learning more natural. New York University. New York, New York, USA. Mar 2021.

T15 Steps towards making machine learning more natural. University of Edinburgh. Edinburgh, UK. Mar 2021.

T16 Steps towards making machine learning more natural. University of Maryland, College Park. College Park, Maryland, USA. Feb 2021.

T17 A tutorial on few-shot learning and unsupervised representation learning. Vector Institute. Toronto, Ontario, Canada. Jan 2021.

2020

T18 How can we apply few-shot learning? Vector Institute. Toronto, Ontario, Canada. Oct 2020.

T19 Towards continual and compositional few-shot learning. Stanford University. Stanford, California, USA. Oct 2020.

T20 Towards continual and compositional few-shot learning. Brown University. Providence, Rhode Island, USA. Sept 2020.

T21 Towards continual and compositional few-shot learning. MIT. Cambridge, Massachusetts, USA. Sept 2020.

T22 Towards continual and compositional few-shot learning. Mila. Montréal, Québec, Canada. Aug 2020.

T23 Towards continual and compositional few-shot learning. Uber ATG. Toronto, Ontario, Canada. Aug 2020.

T24 Wandering within a world: Online contextualized few-shot learning. Google Brain. Montréal, Québec, Canada. Aug 2020.

T25 Wandering within a world: Online contextualized few-shot learning. ICML 2020 Lifelong Learning Workshop. July 2020.

T26 Wandering within a world: Online contextualized few-shot learning. ICML 2020 Continual Learning Workshop. July 2020.

2019

T27 Jointly learnable behavior and trajectory planner for autonomous driving. IROS 2019. Macau, China. Nov 2019.

T28 Meta-learning for more human-like learning algorithms. Columbia University. New York, New York, USA. Oct 2019.

2018

T29 Learning to reweight examples for robust deep learning. CIFAR deep learning and reinforcement learning summer school. Toronto, Ontario, Canada. Aug 2018.

T30 Meta-learning for weakly supervised learning. INRIA Grenoble - Rhône-Alpes. Grenoble, France. July 2018.

T31 Learning to reweight examples for robust deep learning. ICML 2018. Stockholm, Sweden. July 2018.

T32 Meta-learning and learning to reweight examples. Max Planck Institute for Intelligent Systems. Tübingen, Germany. June 2018.

T33 SBNet: Sparse blocks network for fast inference. CVPR 2018. Salt Lake City, Utah, USA. June 2018.

T34 Meta-learning for weakly supervised learning. NEC Laboratories America. Princeton, New Jersey, USA. June 2018.

T35 SBNet: Sparse blocks network for fast inference. Borealis AI Lab (RBC Research). Toronto, Ontario, Canada. Feb 2018.

2017

T36 Meta-learning for semi-supervised few-shot classification. Vector Institute. Toronto, Ontario, Canada. Nov 2017.

T37 End-to-end instance segmentation with recurrent attention. CVPR 2017. Honolulu, Hawaii, USA. July 2017.

T38 Sequence-to-sequence deep learning with recurrent attention. Queen's University. Kingston, Ontario, Canada. May 2017.

T39 Recurrent neural networks. CSC 2541: Sport Analytics Guest Lecture. University of Toronto. Toronto, Ontario, Canada. Jan 2017.

2016

T40 Deep dashboard tutorial. University of Guelph. Guelph, Ontario, Canada. Mar 2016.

T41 Deep dashboard tutorial. University of Toronto. Toronto, Ontario, Canada. Feb 2016.

2015

T42 Exploring data and models for image question answering. ICML 2015 Deep Learning Workshop. Lille, France. July 2015.

STUDENT
SUPERVISION

PhD Students (NYU):
- Ryan Teehan   2022 - Present
- Alexander Wang   2022 - Present
- Yanlai Yang   2022 - Present

Master's Students (NYU):
- Shantanu Acharya, Rui Chen, Avinav Goel, Anish Mahishi, Rakhee Rakhee, Billy Sun, Ying Wang   2022-2023

Undergraduate Students (NYU):
- Peiqi Liu, Alexa Tartaglini   2022-2023

Undergraduate Students (University of Toronto):

- Alexander Li, Jason Sun, Alexander Wang, Yatu Zhang

Interns (Uber ATG & Waabi):
- Richard Du, Alexander Li, Yen-chen Lin, Mengfei Liu, Stephen Liu, Ava Pun, Quinlan Sykora, James Tu, Nicholas Vadivelu, Jingkang Wang, Bob Wei, Xinkai Wei, Chris Zhang, Lunjun Zhang

MEDIA COVERAGE
- Researchers Build AI That Builds AI. Quanta Magazine. `[link]`. 2022/01/25.
- Researchers from University of Toronto proposed attention attractor networks and implemented incremental few-shot learning. Synced. `[link]`. 2019/11/03.
- Autonomous vehicles: U of T researchers make advances with new algorithm. Nina Haikara. U of T News. `[link]`. 2018/06/21.
- Industry — Uber proposed SBNet: Leveraging activation block sparsity for speeding up convolutional neural networks. Synced. `[link]`. 2018/01/18.
- SBNet: Leveraging activation block sparsity for speeding up convolutional neural networks. Uber Engineering Blog. `[link]`. 2018/01/16.