# MENGJIAO YANG

Software Engineer, Google Brain

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Sherryy

## Education

2017-2018 M.Eng. in Computer Science, MIT,

Julian Shun.

Computer Science and Artificial Intelligence Laboratory (CSAIL)

2014-2017 B.S. in Computer Science, MIT,

Patrick Winston.

**Graduate level courses**: Machine Learning, Signals and Inference, Operating Systems, Distributed Systems, Database Systems, Computer Security, Performance Engineering

### Selected Publications

Preprint Hongyu Ren, Hanjun Dai, Zihang Dai, **Mengjiao Yang**, Jure Leskovec, Dale Schuurmans, Bo Dai. Combiner: Full Attention Transformer with Sparse Computation Cost. 2021

Preprint Siddharth Verma, Justin Fu, **Mengjiao Yang**, Sergey Levine. CHAI: A CHatbot AI for Task-oriented Dialogue with Offline Reinforcement Learning. 2021

Preprint Ofir Nachum, **Mengjiao Yang**. Provable Representation Learning for Imitation with Contrastive Fourier Features. arXiv:2105.12272, 2021

Preprint Mengjiao Yang\*, Bo Dai\*, Ofir Nachum\*, George Tucker, Dale Schuurmans. Offline Policy Selection under Uncertainty. arXiv:2012.06919, 2020.

Preprint Haoming Jiang, Bo Dai, **Mengjiao Yang**, Wei Wei, Tuo Zhao. *Towards Automatic Evaluation of Dialog Systems: A Model-Free Off-Policy Evaluation Approach*. Preprint, 2021

ICML21 Mengjiao Yang, Ofir Nachum. Representation Matters: Offline Pretraining for Sequential Decision Making. International Conference on Machine Learning (ICML), 2021.

ICLR21 Justin Fu, Mohammad Norouzi, Ofir Nachum, George Tucker, Ziyu Wang, Alexander Novikov, Mengjiao Yang, R. Michael Zhang, Yutian Chen, Aviral Kumar, Cosmin Paduraru, Sergey Levine, Thomas Paine. Benchmarks for Deep Off-Policy Evaluation. International Conference on Learning Representations (ICLR), 2021.

NeurIPS20 **Mengjiao Yang\***, Ofir Nachum\*, Bo Dai\*, Lihong Li, Dale Schuurmans. *Off-Policy Evaluation via the Regularized Lagrangian*. Conference on Neural Information Processing Systems (NeurIPS), 2020.

ICML20 Mengjiao Yang\*, Bo Dai\*, Hanjun Dai, Dale Schuurmans. Energy-Based Processes for Exchangeable Data. International Conference on Machine Learning (ICML), 2020.

HCML19 Mengjiao Yang, Been Kim. Benchmarking Attribution Methods with Relative Feature Importance. Oral at NeurIPS workshop on Human-Centric Machine Learning, 2019.

OOPSLA18 Yunming Zhang, **Mengjiao Yang**, Riyadh Baghdadi, Shoaib Kamil, Julian Shun, Saman Amarasinghe. *GraphIt: A High-Performance Graph DSL*. The Object-Oriented Programming, Systems, Languages and Applications (OOPSLA), 2018.

Master's Mengjiao Yang. Cache and NUMA Optimizations in A Domain-Specific Language for Thesis Graph Processing. Master's thesis, Massachusetts Institute of Technology, 2018.

# Projects & Experiences

2018 **TensorFlow** SWE: Implemented multi-core inference and variable sharing on TPUs. Improved utilization by  $\geq 2X$ . Received Google Perfy Award and peer bonus.

2017 Android Operating System internship: Designed Linux shrinker in the Android operatinig system kernel for fast RPCs with lazy memory allocation. Code merged in upstream Linux. Received spot bonus.

2017 **Five Rings Capital** internship: Built a high-performance interpreter to convert market data from stock exchanges to internal distributed trade messages.

- 2016 Google CodeU: Built a news search engine with crawling and indexing features. Won People's Choice Award.
- 2016 **Rev.com** internship: Full-stack software web development.
- 2016 Microsoft Student Partner: Course instructor for machine learning with Azure at MIT.
- 2015 MakeMIT finalist: Invented a heart-attack detection/CPR device with Arduino.
- 2015 MassChallenge internship: Full-stack software web development.

### Awards

- 2021 Berkeley AI Research (BAIR) Ignition Award
- 2017 Grace Hopper Research Scholar Award
- 2017 MIT EECS Slaughter Undergraduate Research and Innovation Scholar Award
- 2016, 2017 MIT Jack C. Tang Scholar Award

## Skills

Programming C, C++, Python, Java, GoLang, Unix, Emacs

Language Mandarin Chinese (native), English (fluent)

## Professional Activities

- ICML Reviewer for International Conference on Machine Learning (ICML), 2021.
- IJCAI Program committee for International Joint Conference on Artificial Intelligence (IJCAI), 2021.
- AAAI Reviewer for Association for the Advancement of Artificial Intelligence (AAAI), 2021.
- BayLearn Reviewer for Bay Area Machine Learning Symposium (BayLearn), 2020.
- SIGKDD Reviewer for Special Interest Group on Knowledge Discovery and Data Mining (SIGKDD), 2020.