Qingfei You

CONTACT INFORMATION

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EXPERIENCES

JULY 2022

Research Engineer (FAIR - Meta AI)

- present

Meta, London, England Reinforcement Learning

• Co-led the research on Generalization of Offline Reinforcement Learning (Offline RL). Built data pipeline to collect expert and suboptimal data; trained and evaluated Offline RL algorithms; compressed (x14) and open-sourced data (70GB) and code.

Large Language Model (LLM)

- Prepared code dataset for LLaMa and CodeLLaMa pretraining, by processing / cleaning 100TB raw data. Explored different approaches from the community to close the gap for every processing step.
- Transformed Jupyter Notebooks (160GB) into 2 datasets (Scripts, Dialogs) for CodeLLaMa pretraining and RLHF finetuning.
- Reduced inference latency of T5-like LLMs by 2x (3B) to 8x (small) with NVIDIA's FasterTransformer; Benchmarked with +10 approaches from HuggingFace, NVIDIA, PyTorch, MicroSoft and Tencent.
- Productionized a T5-like language model (PEER) of 3B parameters on an AWS EC2 instance. Built a pipeline from scratch to reproduce deployment with 1 single docker command.

MAR 2020

Senior Software Engineer (Integrity Experience)

- JUNE 2022 | Meta, London, England

- Designed and implemented a content management system from scratch, and led a small team to onboard both existing and new use cases, reducing average onboarding cost by 99% (3 days to 15 mins).
- Led a small group of engineers to migrate and aggregate contents, removing 9.8k (70%) duplicates, and saving 3600 hours and \$2.4M for translation.

Mar 2018

Software Engineer (Community Integrity)

- FEB 2020

Facebook, London, England

- Increased overall appeal coverage by 160% by expanding appeal workflow to Spam violations and bad URLs on Facebook.
- Saved human review resources by half by migrating appeals to new workflow and removing redundant middle step.

SEPT 2014

Software Engineer (E-Business Trading)

- DEC 2017

Société Générale CIB, Paris, France

- Expanded e-trading scope by 6x, from futures only to options, forwards, spots, swaps, averages and time-spreads.
- Reduced e-trading latency to be <200ms by adding cache and optimizing workflow.

MAR 2013

Research Intern (CTO's team - Wind Turbine Blade Inspection)

- AUG 2013

- Cornis, Paris, France
- Designed and implemented multiple image correlation algorithms from scratch in C++ to construct the full blade automatically, with the best of 82% accuracy compared to human level.
- Optimized algorithm latency by 14x using Fast Fourier Transform, convolution, and integral images.

PREPRINTS

- [1] Ishita Mediratta*, **Qingfei You***, Minqi Jiang, Roberta Raileanu. (2023). The Generalization Gap in Offline Reinforcement Learning. *arXiv*:2312.05742.
- [2] Timo Schick, Jane Dwivedi-Yu, Zhengbao Jiang, Fabio Petroni, Patrick Lewis, Gautier Izacard, Qingfei You, Christoforos Nalmpantis, Edouard Grave, Sebastian Riedel. (2022). Peer: A collaborative language model. arXiv:2208.11663.

PUBLICATIONS

[1] Ishita Mediratta*, **Qingfei You***, Minqi Jiang, Roberta Raileanu. (2023). A Study of Generalization in Offline Reinforcement Learning. In *Proceedings of the 37th Conference on Neural Information Processing Systems (NeurIPS)*. To appear in *Proceedings of the 12th International Conference on Learning Representations (ICLR)*.

PROJECTS

DEC 2023 Andrej Karpathy's Neural Networks: Zero to Hero

- MAR 2024 • micrograd: Built a PyTorch-like engine with autograd to train neural networks.

• makemore: Implemented Language models (BiGram, MLP, WaveNet) to generate names.

• nanoGPT: Built GPT from scratch to generate shakespeare.

EDUCATION

AUG 2011 M.S.E. in Computer Science
- SEPT 2013 Télécom ParisTech, Paris, France

Department of Computer Science

SEPT 2007 B.Eng. in Electronics Science & Technology

- JUNE 2011 Southeast University, Nanjing, China

Department of Electronics Science & Engineering

Advisor: Prof. Yiping Cui GPA: 92/100 (4th of 184)

CERTIFICATES

2018 Deep Learning Specialization (Coursera)

2017 Neural Networks for Machine Learning (Coursera)

2016 Machine Learning (Coursera)

HONORS & AWARDS

2010 Meritorious Prize in International Mathematical Contest in Modeling (IMCM)

2009 National Scholarship (top 3%)

2008 National Scholarship (top 1%)