YICHEN LI

PH.D. CANDIDATE · ML RESEARCH · COMPUTER SCIENCE

Tucson, AZ | 5209097639 | yichenl@arizona.edu | https://liyichen1998.github.io

ML researcher with provable expertise in interactive algorithms. Worked across vision, video, and structured data. Strong theory, efficient learning.

TECHNICAL SKILLS

Python · PyTorch · TensorFlow · HuggingFace | Mixed precision · Multi-GPU Training

Git · Docker · W&B · CUDA | Ablation design · Technical writing · Team collaboration

EDUCATION

Ph.D. CS, University of Arizona — Expected Oct 2025, Advisor: Chicheng Zhang
B.Eng. Intelligent Science & Tech, USTB — GPA 3.91/4.0 (Top 2%), 2020

INDUSTRY EXPERIENCE

Microsoft Research, Research Intern – Human-Oriented Driving | Apr – Jun 2024

Multi-sim F 1 Racing · Transformer-Based Control · Imbalanced Data

- Introduced transformer-based sequence model enabling self-play simulation
- Built imitation learning pipeline with raw logs across simulators
- Led first structured ablation with racing expert; ran weekly client syncs
- Initiated interactive learning direction; enabled self-supervision under dynamics shift

Sanofi, Research Intern – AI for Histology Imaging | May – Aug 2023

Generative AI · Vision Transformers · Rapid Prototyping

- Applied ViT modules and mixed-precision training for virtual stain image generation
- Designed dual-branch GAN guided by segmentation masks to reflect staining process
- Delivered model and baselines in one month; co-authored MICCAI-AMAI 2023 paper
- Improved segmentation pipeline via redesigned end-to-end framework

SELECTED PROJECTS

Provably Efficient Imitation Learning & Distillation | Aug 2020 – Present

Designed provably efficient algorithms for both imitation learning and model distillation, with a focus on non-realizable settings. Bridged theory and practice via state-of-the-art designs and scalable implementations.

- **Token-level LLM distillation**: fine-tuned student with token-wise expert feedback via interactive querying; improved long-context reasoning
- WarmStartDagger / Stagger: interactive imitation learning with state-wise expert queries and offline data reuse. (under review at NeurIPS 2025)
- Bootstrap-DAgger / MFTPL variants: ensemble-based interactive imitation learning with provable guarantees in non-realizable settings (NeurIPS 2022, ICML 2024)

Stereo Matching and View Synthesis | Tsinghua University | 2019–2020
Stereo matching · View synthesis · GAN · CUDA programming · TensorFlow

Multimodal Video Saliency Prediction | Tsinghua University | 2019–2020
Multimodal modeling · Popularity signals · Data preprocessing · FFmpeg

PUBLICATIONS

Yichen Li, Chicheng Zhang. Interactive and Hybrid Imitation Learning: Provably Beating Behavior Cloning. (Under Review of NeurIPS 2025).

Yichen Li, Chicheng Zhang. Agnostic Interactive Imitation Learning: New Theory and Practical Algorithms. **ICML 2024.**

Yichen Li, Chicheng Zhang. On Efficient Online Imitation Learning via Classification. **NeurIPS 2022.**

Jiangyue Xia, Jingqi Tian, Hui Qiao, **Yichen Li** , Jiangtao Wen and Yuxing Han. Multimodal Video Saliency Analysis With User-Biased Information. **ICME 2020.**

Wei Zhao, Bozhao Qi, **Yichen Li,** et al. *Clinical Trial Histology Image Based End-to-End Biomarker Expression Levels Prediction and Visualization Using Constrained GANs.* **MICCAI-AMAI 2023**

Honors&Awards

University of Arizona Grad College Fellowship	2025
ICML 2024 Student Award	2024
NeurIPS 2022 Scholar Award	2022
Beijing Outstanding Undergraduate Graduation Thesis (for top 0.7% students)	2020
National Third Prize of University Computer Games Championship	2019
National Second Prize of Chinese Collegiate Computing Competition	2019
National Second Prize of China Undergraduate Mathematical Contest in Modeling	2018

Academic Service

ICML2023, ACL2023, NeurIPS2023, ICLR2024, COLT2024, NeurIPS2024, NeurIPS2025