Ziyao Mou

Johns Hopkins University
Computer Science
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Education

Johns Hopkins University *Aug. 2024–Dec. 2025 (expected)*
M.S.E. in Computer Science
Master's Thesis: Learning to Defer under Expert Drift.

Huazhong University of Science and Technology *Sept. 2018–June 2022*
B.Eng. in Computer Science
Bachelor's Thesis: Design and Implementation of a Resource Scheduling System for Workflow Applications on a Serverless Platform.

Research

Ziyao Mou, Andrea Wynn, Eric Nalisnick. *Feb. 2025-Present*
Learning to Defer under Expert Drift. (Under Review)

- Designed an expert-aware learning-to-defer framework that models temporal expert drift by conditioning the deferral head on recent expert outcomes via a sequence model.
- Learned history-aware policies that proactively route hard or critical cases to humans when reliability dips, improving safety under time-varying expertise.
- Evaluated on image classification, medical diagnosis, and hate-speech detection with simulated and real expert drift.
- Achieved higher system accuracy and better deferral efficiency than prior L2D baselines.

Ziyao Mou, Ha Manh Bui, Anqi Liu. *June 2025-Present*
Multiple Domain Recalibration for Model-based Reinforcement Learning.

- Proposed a multi-domain recalibration framework to align epistemic uncertainty across domains in model-based RL, improving robustness under domain shift.
- Designed interploration and exploration protocols with controllable noise levels train; dense interpolation; OOD to assess generalization and sample efficiency.
- The proposed framework achieves enhanced in-domain interpolation and exploration efficiency, leading to better generalization and stability across environments.

Employments

Software Development Engineer *Jul. 2023–Jul. 2024*

Alibaba Group, Taobao Search Team
Led full-stack development of Taobao's AI-powered shopping assistant, delivering a cross-platform user interface with intelligent features such as product comparison, recommendations, and travel planning.

Software Development Engineer *Jul. 2022–Jul. 2023*
Alibaba Group, Platform Infrastructure Team
Built a user experience reporting & telemetry platform that ingests multimedia feedback and logs, with a BERT-based sentiment clustering pipeline and screenshot similarity detection.

Software Development Intern *Jun. 2021–Aug. 2021*
Alibaba Group, Buyer Base Team
Designed and implemented an edge-computing streaming rendering full-stack architecture using Serverless technologies to improve responsiveness on low-end and older devices.

Teaching

Johns Hopkins University
Course Assistant, Machine Learning: Artificial Intelligence System Design and Development, Fall 2025

Awards

Bronze Award, National Innovation and Entrepreneurship Competition(Challenge Cup)
Team Lead, AidocX
Huazhong University of Science and Technology, China
First Prize, Physics Competition for High School Students
Zhejiang University Affiliated High School, China

Skills

Programming: Python, Java, C/C++, SQL, TypeScript, HTML/CSS.
Cloud & DevOps & Big Data Technologies: AWS (S3, Lambda), Docker, Kubernetes, MongoDB, Redis.
Machine Learning & Data: PyTorch, NumPy, Pandas, Scikit-learn.
Tools & Version Control: Git.

Languages

English (Advanced), Mandarin Chinese (Native).