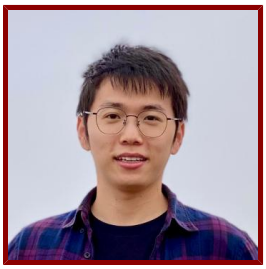
Stanford



Pan Lu

Postdoctoral Scholar, Biomedical Data Sciences

Bio

BIO

I am a Postdoctoral Scholar with Professor James Zou at Stanford University. I received my Ph.D. in Computer Science from UCLA, where I was a member of the UCLA Natural Language Processing Group (UCLA NLP) and the Center for Vision, Cognition, Learning, and Autonomy (VCLA). Previously, I earned my M.S. in Computer Science at Tsinghua University. My research has been funded by the Amazon Ph.D. Fellowship, Bloomberg Data Science Ph.D. Fellowship, Qualcomm Innovation Fellowship, UCLA Dissertation Year Fellowship, and the NeurIPS Scholar Award.

HONORS AND AWARDS

- Bloomberg Data Science Ph.D. Fellowship, Bloomberg (2023)
- Qualcomm Innovation Fellowship, Qualcomm (2023)
- UCLA Dissertation Year Fellowship, UCLA (2023)
- Amazon PhD Fellowship, Amazon (2023)
- Outstanding Master Thesis Award, Tsinghua University (2018)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Program Chair, The 4th Southern California Natural Language Symposium (SoCal NLP) (2023 - 2023)
- Area Chair, The Thirteenth International Conference on Learning Representations (ICLR 2025) (2024 - present)
- Co-organizer, The 4th Workshop on MATH-AI at NeurIPS 2024 (2024 - 2024)
- Co-organizer, Workshop on AI for Math at ICML 2024 (2024 - 2024)
- Co-organizer, Workshop on Tool-Augmented VIsion (TAVI) at CVPR 2024 (2024 - 2024)
- Co-organizer, The 3rd Workshop on MATH-AI at NeurIPS 2023 (2023 - 2023)
- Co-organizer, The 2nd Workshop on MATH-AI at NeurIPS 2022 (2022 - 2022)
- Co-organizer, Workshop on Math AI for Education at NeurIPS 2021 (2021 - 2021)
- Co-organizer, Tutorial on Deep Learning in Mathematical Reasoning at IJCAI 2023 (2023 - 2023)

PROFESSIONAL EDUCATION

- Ph.D., UCLA , Computer Science (2024)

STANFORD ADVISORS

- James Zou, Postdoctoral Faculty Sponsor

LINKS

- My website: https://lupantech.github.io/
- Google Scholar: https://scholar.google.com/citations?user=IyucsdQAAAAJ&hl=en
- Semantic Scholar: https://www.semanticscholar.org/author/Pan-Lu/2887562
- Twitter: https://twitter.com/lupantech

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My research goal is to build machines that can reason and collaborate with humans for the common good. My primary research focuses on machine learning and NLP, particularly machine reasoning, mathematical reasoning, and scientific discovery:

1. Mathematical reasoning in multimodal and knowledge-intensive contexts
2. Tool-augmented large language models for planning, reasoning, and generation
3. Parameter-efficient fine-tuning for fondation models
4. AI for scientific reasoning and discovery

Publications

PUBLICATIONS

- **Optimizing generative AI by backpropagating language model feedback.** *Nature*
  Yuksekgonul, M., Bianchi, F., Boen, J., Liu, S., Lu, P., Huang, Z., Guestrin, C., Zou, J.
  2025; 639 (8055): 609-616
- **VISCO: Benchmarking Fine-Grained Critique and Correction Towards Self-Improvement in Visual Reasoning**
  Wu, X., Ding, Y., Li, B., Lu, P., Yin, D., Chang, K., Peng, N., IEEE COMPUTER SOC
  IEEE COMPUTER SOC.2025: 9527-9537