

Jiashu Xu

📍 Cambridge, MA | 📞 949-522-2936 | ✉️ jxu1@g.harvard.edu | 🌐 cnut1648 | 🎓 Scholar | 🌐 Website | 📄 jiashu-xu

EDUCATION

Harvard University

Master's in Computational Science and Engineering; GPA: 4.0/4.0

Cambridge, USA

Sep 2022 – Jun 2024

University of Southern California

B.S. in Applied Math & Computer Science; GPA: 3.97/4.0

Los Angeles, USA

Aug 2020 – Jun 2022

University of California, Irvine

B.S. in Applied Math & Computer Science; GPA: 3.98/4.0

Irvine, USA

Aug 2018 – Jun 2020

Hong Kong University of Science and Technology

UCEAP summer study abroad, study robotics; GPA: 4.0/4.0

Hong Kong, China

Jun – Aug 2019

Awards: Center for Undergraduate Research in Viterbi Engineering Fellowship, Jennifer Battat Scholarship, USC Transfer Merit Scholarship, USC Academic Achievement Award, USC & UCI Dean's List (all semesters)

RESEARCH INTEREST

My current research interest is in **reliable AI**. Particularly,

1. AI Security [1]
2. Training AI that excels in low-resource regimes, through indirect supervision [7, 9] or synthetic data [3, 4, 6]
3. Explanation and how can we learn from explanation [8, 9, 10]

PUBLICATION

- [1] **Instructions as Backdoors: Backdoor Vulnerabilities of Instruction Tuning for Large Language Models**

Jiashu Xu, Mingyu Derek Ma, Fei Wang, Muhao Chen

NAACL, 2024 (Under Review)

[paper](#)

- [2] **Can NLI Provide Proper Indirect Supervision for Low-resource Biomedical Relation Extraction?**

Jiashu Xu, Mingyu Derek Ma, Muhao Chen

ACL, 2023 ([Oral](#))

[code](#) [paper](#)

- [3] **Dall-e for detection: Language-driven context image synthesis for object detection**

Yunhao Ge*, Jiashu Xu*, Brian Nlong Zhao, Neel Joshi, Laurent Itti, Vibhav Vineet

Arxiv, 2022

[code](#) [paper](#)

- [4] **EXACT: Compositional Augmentation for Image-level Weakly-Supervised Instance Segmentation**

Jiashu Xu*, Yunhao Ge*, Brian Nlong Zhao, Laurent Itti, Vibhav Vineet

TMLR, 2023 (Under Review)

- [5] **X-Norm: Exchanging Normalization Parameters for Bimodal Fusion**

Yufeng Yin*, Jiashu Xu*, Tianxin Zu, Mohammad Soleymani

ICMI, 2022

[paper](#)

- [6] **Neural-Sim: Learning to Generate Training Data with NeRF**

Yunhao Ge, Harkirat Behl*, Jiashu Xu*, Suriya Gunasekar, Neel Joshi, Yale Song, Xin Wang, Laurent

Itti, Vibhav Vineet

ECCV, 2022

[code](#) [paper](#)

- [7] **Unified Semantic Typing with Meaningful Label Inference**

James Y. Huang, Bangzheng Li*, Jiashu Xu*, Muhao Chen

NAACL, 2022

[code](#) [paper](#)

- [8] **Dissection Gesture Sequence during Nerve Sparing Predicts Erectile Function Recovery after Robot-Assisted Radical Prostatectomy**
Runzhuo Ma, **Jiashu Xu**, Ivan Rodriguez, Gina DeMeo, Aditya Desai, Loc Trinh, Jessica H. Nguyen, Anima Anandkumar, Jim C. Hu, Andrew J. Hung
NPJ Digit Medicine, 2022 [paper](#)
- [9] **Dissection Assessment for Robotic Technique (DART) to Evaluate Nerve-Spare of Robot-Assisted Radical Prostatectomy**
Runzhuo Ma, Alvin Hui, **Jiashu Xu**, Aditya Desai, Michael Tzeng, Emily Cheng, Loc Trinh, Jessica H. Nguyen, Anima Anandkumar, Jim C. Hu, Andrew J. Hung
American Urological Association Annual Conference (AUA), 2022 [paper](#)
- [10] **SalKG: Learning From Knowledge Graph Explanations for Commonsense Reasoning**
Aaron Chan, **Jiashu Xu**, Boyuan Long, Soumya Sanyal, Tanishq Gupta, Xiang Ren
NeurIPS, 2021 [code](#) [paper](#)

WORK & TEACHING EXPERIENCE

- Amazon Alexa Science** New York, USA
Applied Scientist *Summer 2023*
 - LLM research for science team.
- Teaching Assistant** Los Angeles, USA
CSCI 567: Machine Learning with Prof. [Haipeng Luo](#) *Fall 2021*
 - Held Office Hours, monitored piazza to answer students' questions regarding math and code implementation and graded homework and projects.
- Teach for Los Angeles** Los Angeles, USA
Mentor *Spring 2021*
 - Tutored middle school students from LA K-12 community 1-on-1 on mathematics two hours every week.
 - Inspired students to reach full math potential in preparation for college and STEM careers.
- Math CEO** Irvine, USA
Mentor *Fall 2018 – Spring 2020*
 - Coordinated meetings with Santa Ana middle school students and taught mathematical thinking.
- Johnson & Johnson** Shanghai, China
Digital & Analytics Data Assistant *Summer 2019*
 - Tracked counterfeit products or parallel products from various sales channels using NLP techniques including semantic role labeling and named entity recognition.
 - Devised context extractor based on Jieba tokenizer and Chinese word vectors.
 - Presented in PCS 2019 medicine CIO summit about NLP approach for tracking counterfeit products.
- Wind Information** Shanghai, China
Quantitative Index Research Analyst *Spring – Summer 2018*
 - Collaborated with product managers to launch Wind's new product: Wind Equity Backtester and implemented multiple prototype algorithms with test codes using python-wind and Pytest.
 - Code-reviewed index-related codes, queried Wind index database to resolve clients' complaints.

SKILLS

Languages: Python, C/C++, Java, Scala, MATLAB, R, {Java, Type}Script, SQL, \LaTeX

Frameworks: PyTorch, TensorFlow, scikit-learn, Pandas, Spark, React.js, Spring, AWS, gradio, MariaDB, MongoDB