

Zixian Ma

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EDUCATION

Stanford University

BS with Honors and MS in Computer Science; Minor in Biology; GPA: 3.97/4.00

9/2018 – 6/2022

Courses: Natural Language Understanding, Convolutional Neural Network for Visual Recognition, Introduction to Human-Computer Interaction Design, Machine Learning, ML with Graphs, Reinforcement Learning, Web Applications

RESEARCH

ELIGN: Expectation Alignment as a Multi-Agent Intrinsic Reward

2022

Zixian Ma, Rose E. Wang, Michael Bernstein, Li Fei-Fei, Ranjay Krishna

The Thirty-Sixth Annual Conference on Neural Information Processing Systems (NeurIPS 2022)

Model Sketching: Centering Concepts in Early-Stage Machine Learning Model Design

2022

Michelle Lam, Ulo Freitas, Anne Li, Zixian Ma, Dakuo Wang, Michael Bernstein, James Landay

The ACM CHI Conference on Human Factors in Computing Systems (CHI 2023) (In submission)

OpenAttack: An Open-source Textual Adversarial Attack Toolkit

2021

Guoyang Zeng, Fanchao Qi, Qianrui Zhou, Tingji Zhang, Zixian Ma, Bairu Hou, Yuan Zang, Zhiyuan Liu, Maosong Sun

Proceedings of the Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing: System Demonstrations

RESEARCH EXPERIENCE

Stanford Vision and Learning Lab

4/2020 – 9/2021

- Led an independent research project (supervised by Prof. Li Fei-Fei, Prof. Michael Bernstein, and Prof. Ranjay Krishna) on intrinsic motivation for multi-agent coordination and submitted Neurips 2022

Stanford Human-Computer Interaction Group

6/2022 – 9/2022

- Developed a Python package called ModelSketchBook and conducted user studies for the Model Sketching project, and submitted to CHI 2023

Tsinghua Natural Language Processing Lab

1/2021 – 5/2021

- Contributed to the OpenAttack project, an open-source toolkit for textual adversarial attacks and defenses, by reproducing and evaluating adversarial attacks to language models and adding support for multilingual transformers
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WORK EXPERIENCE

Google Research – Research Intern

8/2022 – 11/2022

- Develop, train, and evaluate large language and vision-language models for multi-step screen navigation

Facebook – Software Engineering Intern

6/2021 – 8/2021

- Built and optimized multi-task multi-label models for Facebook stories ranking with multi-gate mixture of experts module; launched the models and reduced the company's multi-feed CPU usage by 0.6% (\$191,746)

IBM China Development Lab – Algorithm Engineering Intern

6/2019 – 8/2019

- Improved the confidence of the classification algorithm by 20~30% using transfer learning; optimized the edge detection algorithm in the BMW automobile parts counting project, and reduced inference time by half
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AWARDS & LEADERSHIP

The Firestone Medal for Excellence in Undergraduate Research (top 10 percent of Honors Theses)

2022

The Ben Wegbreit Prize for Undergraduate CS Research (the CS Department's Best Honors Thesis award)

2022

Sponsor Prize Winner @ TreeHacks; Best Overall Prize @ Hackoverflow

2019

Student Organizer of Stanford Existential Risks Initiative

2021

Head Academic Lead @ X Academy - BioX Summer Camp

2020 - 2021

TECHNICAL SKILL

- Python, Pytorch, TensorFlow, C++, C, R, HTML&CSS, JavaScript, React, SQL