

Buyun Liang

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🎓 Google Scholar

🐙 GitHub

EDUCATION

University of Pennsylvania

Ph.D. in Computer and Information Science | Advisor: *Prof. René Vidal*

Philadelphia, PA, USA

Sep 2023 - Present

University of Minnesota, Twin Cities

M.Sc in Computer Science | Advisor: *Prof. Ju Sun*

Minneapolis, MN, USA

Sep 2020 - May 2023

◦ GPA: 4.0/4.0

University of Minnesota, Twin Cities

M.Sc in Materials Science (Ph.D. Track) | Advisor: *Prof. Ilja Siepmann*

Minneapolis, MN, USA

Sep 2018 - Aug 2020

◦ GPA: 3.66/4.0 | GPA of AI-related courses: 4.0/4.0

Nanjing University

B.Sc in Physics (Elite Program)

Nanjing, Jiangsu, China

Sep 2014 - Jun 2018

◦ GPA: 89.6/100

RESEARCH INTERESTS

Trustworthy AI, Optimization for AI, AI for Science

SELECTED PUBLICATIONS

- [1] **Buyun Liang**, Wenjie Zhang, Hengyue Liang, Tim Mitchell, Ying Cui, Ju Sun. *NCVX: A General-Purpose Optimization Solver for Machine Learning, and Practical Techniques*. In preparation for IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI). [[website](#)]
- [2] **Buyun Liang**, Tim Mitchell, Ju Sun. *NCVX: A General-Purpose Optimization Solver for Constrained Machine and Deep Learning*. In Neural Information Processing Systems (NeurIPS) Workshop on Optimization for Machine Learning (OPT 2022). [[paper](#)][[poster](#)]
- [3] Hengyue Liang, **Buyun Liang**, Le Peng, Ying Cui, Tim Mitchell, Ju Sun. *Optimization and Optimizers for Adversarial Robustness*. Under review at International Journal of Computer Vision (IJCV). [[paper](#)]
- [4] Hengyue Liang, **Buyun Liang**, Le Peng, Ying Cui, Tim Mitchell, Ju Sun. *Implications of Solution Patterns on Adversarial Robustness*. In Computer Vision and Pattern Recognition (CVPR) Workshop of Adversarial Machine Learning on Computer Vision (Art of Robustness). [[paper](#)]
- [5] Hengyue Liang, **Buyun Liang**, Ying Cui, Tim Mitchell, Ju Sun. *Optimization for Robustness Evaluation beyond ℓ_p Metrics*. In IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 2023) & Neural Information Processing Systems (NeurIPS) Workshop on Optimization for Machine Learning (OPT 2022). [[paper](#)][[poster](#)]

TUTORIALS

Deep Learning with Nontrivial Constraints, in *SDM23* [[website](#)]

PROFESSIONAL SERVICE

Reviewer: AISTATS, UAI, ICASSP, NeurIPS OPT Workshop

(Update: Jan 18, 2024)