Yun Cheng

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EDUATION	Princeton University	Princeton, NJ
	Ph.D. in Computer Science	September 2023

- Advised by Prof. Sanjeev Arora

Carnegie Mellon University — Pittsburgh, PA
M.S. in Machine Learning — December 2022
GPA 4.14/4.33

- Advised by Prof. Louis-Philippe Morency
- *Selected Coursework: Intermediate Deep Learning, Machine Learning in Practice, Probabilistic Graphical Models, Convex Optimization, Advanced Multimodal Machine Learning*

Carnegie Mellon University — Pittsburgh, PA
B.S. in Computer Science (University Honors) — December 2021
B.S. in Discrete Mathematics and Logic (University & College Honors)
GPA 3.85/4.0

- *Selected Coursework: Intro to Deep Learning, Probability and Mathematical Statistics (PhD), Multimodal Machine Learning, Intro to Machine Learning (PhD), Design and Analysis of Algorithms, Distributed Systems, Graph Theory*

PUBLICATIONS

1. Simon Park*, Abhishek Panigrahi*, **Yun Cheng***, Dingli Yu, Anirudh Goyal, Sanjeev Arora. "Generalizing from SIMPLE to HARD Visual Reasoning: Can We Mitigate Modality Imbalance in VLMs?" ICML 2025.

2. Paul Pu Liang, Chun Kai Ling, **Yun Cheng**, Alexander Obolenskiy, Yudong Liu, Rohan Pandey, Alex Wilf, Louis-Philippe Morency, Russ Salakhutdinov. "Multimodal Learning Without Labeled Multimodal Data: Guarantees and Applications." ICLR 2024.

3. Paul Pu Liang, **Yun Cheng**, Xiang Fan, Chun Kai Ling, Suzanne Nie, Richard Chen, Zihao Deng, Nicholas Allen, Randy Auerbach, Faisal Mahmood, Ruslan Salakhutdinov, Louis-Philippe Morency. "Quantifying & modeling multimodal interactions: An information decomposition framework." NeurIPS 2023.

4. Paul Pu Liang, Yiwei Lyu, Xiang Fan, Zetian Wu, **Yun Cheng**, Jason Wu, Leslie Chen, Peter Wu, Michelle A Lee, Yuke Zhu, Ruslan Salakhutdinov, Louis-Philippe Morency. "MultiBench: Multiscale Benchmarks for Multimodal Representation Learning." NeurIPS Datasets and Benchmarks (2021).

5. **Yun Cheng**, Yixue Liu, Tomasz Tkocz, Albert Xu. "Typical Values of Extremal-Weight Com- binatorial Structures with Independent Symmetric Weights". Electron. J. Combin. 30 (2023), no. 1, Paper No. 1.12, 12 pp.

6. Paul Pu Liang, Yiwei Lyu, Xiang Fan, Arav Agarwal, **Yun Cheng**, Louis-Philippe Morency, Ruslan Salakhutdinov. "MultiZoo & MultiBench: A Standardized Toolkit for Multimodal Representation Learning." JMLR (2023).

HONORS & AWARDS	*Francis Robbins Upton Fellowship*	2023-2028
	Mathematics Prize	2022
	CMU SCS DEI Grace Hopper Sponsorship	2022
	Machine Learning TA Award	2020-2021
	Dean's List, High Honors	2018-2022

TEACHING	**Princeton University**	Princeton, NJ
	Teaching Assistant	
	Natural Language Processing (Instructor: Danqi Chen, Tri Dao, Vikram Ramaswamy)	Spring 2025
	Introduction to Machine Learning (Instructor: Jia Deng, Adji Bousso Dieng)	Fall 2024
	Carnegie Mellon University	Pittsburgh, PA
	Teaching Assistant	
	Advanced Multimodal Machine Learning (Instructor: Louis-Philippe Morency)	Spring 2023
	Artificial Social Intelligence (Instructor: Louis-Philippe Morency)	Spring 2023
	Multimodal Machine Learning (Instructor: Louis-Philippe Morency, Yonatan Bisk, Daniel Fried) Fall 2022, Spring 2023	
	Intro to Machine Learning (Instructor: Matt Gormley)	Spring 2021, Fall 2021
	Mathematical Concepts and Proofs (Instructor: John Mackey)	Fall 2019, Fall 2020
	Concepts of Mathematics	Summer 2020

SKILLS

Programming Languages: Python (NumPy, PyTorch, Tensorflow, Scikit-Learn, CVXPY, Pandas, Matplotlib), C/C++, Java, Go, Standard ML
Languages: English, Mandarin (Native or Bilingual)

PROFESSIONAL SERVICE	*Reviewer*	2022-2024
	NeurIPS (2024, 2025), NeurIPS Track Datasets and Benchmarks (2022, 2023, 2024), ICLR (2024), EMNLP (2023)	