Quan (Ben) Shi

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EDUCATION	**Department of Computer Science, Princeton University**	Princeton, NJ
	B.S.E. in Computer Science, Certificate in Statistics + Machine Learning	2020 - 2024

- Advisors: Prof. Karthik Narasimhan, Dr. Shunyu Yao
- GPA: 3.95/4.00, Magna Cum Laude, Phi Beta Kappa (Top 10%)
- Thesis: Towards Memory Augmented Language Agents

EMPLOYMENT	**Research Assistant (Current)**	Princeton, NJ	2023.01 - Current

- Code agent planning + reasoning (USACO, SWE-Agent)
- Foundations for Reasoning-Based Retrieval (BRIGHT, Redefining Relevance)
- Human-Agent collaboration on hard reasoning tasks (CodeHT)

Software Engineer, Meta | Menlo Park, CA   2022.06 - 2022.08

- Core Ad Experiences Team
- Built and monitored adjustments to ad creative optimization pipelines

PUBLICATIONS

1. **Quan Shi***, Michael Tang*, Karthik Narasimhan, Shunyu Yao. "Can Language Models Solve Olympiad Programming?" *Proceedings of COLM*, 2024.

2. Hongjin Su, Howard Yen, Mengzhou Xia, Weijia Shi, Niklas Muennighoff, Han-yu Wang, Haisu Liu, **Quan Shi**, Zachary S. Siegel, Michael Tang, Ruoxi Sun, Jinsung Yoon, Sercan O. Arik, Danqi Chen, and Tao Yu. BRIGHT: A Realistic and Challenging Benchmark for Reasoning-Intense Retrieval. *In Review, ICLR 2025*.

3. **Quan Shi**, Howard Yen, Mengzhou Xia, Shunyu Yao, Danqi Chen*, Karthik Narasimhan*. "To Retrieve or not to Retrieve: Redefining Reasoning-Based Retrieval Utility" *In Review, December ARR 2024*

AWARDS AND HONORS		
- **Sigma Xi Book Award**, Outstanding Undergraduate Thesis	2024.06
- **Sigma Xi Inductee**, Outstanding Undergraduate Research Record	2024.06
- **National Merit Scholarship Recipient**, NMSC	2020.08
- **Biology Olympiad National Top 30**, CEE	2018.08

RELEVANT PAST PROJECTS	**Memory-Augmented Personal Assistant**	
	COS597A Vector Databases Final Project, Princeton Research Day	2024.9 - 2024.12
	Knowledge Distillation for Multiplexed Models	
	NLP Course Final Project	2023.1 - 2023.5

TEACHING ASSISTANT	**COS484: Natural Language Processing**, Karthik Narasimhan	Spring 2024
	COS240: Reasoning in Computation, Ran Raz	Fall 2024
	COS445: Incentives in Computer Science, Matt Weinberg	Spring 2023
	COS216: Data Structures and Algorithms, Kevin Wayne	Fall 2023
	COS226: Introduction to Programming Systems, Szymon Rusinkiewicz	Fall 2023

EXTRA-CURRICULARS

Academic: AI@Princeton, HackPrinceton, Math Club (PUMAC)

Other: Princeton Rock Ensemble, Coffee Club Performer, PorchFest Performer, Tower Club, VTone songwriter/arranger, Chinese Language Assocation, Composers' Collective