ALEXANDER KOUJIANOS GOLDBERG

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🌐 https://akgoldberg.github.io/

RESEARCH STATEMENT

My research develops methods to understand and mitigate uncertainty when making decisions based on error-prone evaluations. Across many domains, critical choices rely on judgments that are subjective, noisy, or potentially biased. I use tools from AI, optimization, and data science to design principled algorithms and large-scale experiments that make such decisions more reliable, transparent, and fair. A motivating application of my work is in evaluating science, where decisions about publishing, funding, and disseminating research are often made under uncertainty. More broadly, my work applies to sociotechnical systems in which human judgment plays a central role, such as admissions, job hiring, investment decisions, or medical assessments.

EDUCATION

2021 - Present	**PhD Candidate in Computer Science Department** Advised by Giulia Fanti and Nihar B. Shah	**Carnegie Mellon University**
2014 - 2018	**A.B. in Applied Mathematics, Magna Cum Laude with Highest Honors** Secondary in History, GPA: 3.91	**Harvard University**

AWARDS (SELECTED)

2023	**NSF Graduate Research Fellowship**
2018	**Thomas Temple Hoopes Prize** Awarded by Harvard College for outstanding work on my senior thesis titled "Towards Differentially Private Inference on Network Data" advised by Professor Salil Vadhan.
2018	**Phi Beta Kappa, Harvard College**
2017	**History Department Undergraduate Essay Prize**

WORK EXPERIENCE

2018-2021	**Facebook - Data Scientist** • Worked on the Ads Integrity team, leveraging statistical analysis and machine learning to ensure that Facebook's ad ecosystem is safe and trustworthy. • Designed improvements to Facebook's Political Ad Library to improve transparency into political advertising in the lead-up to US 2020 elections. • Improved measurement and classification of counterfeits and job scams in online ads.
2017	**Facebook - Data Science Intern**
2016	**Microsoft - Software Engineering Intern**

SELECTED PUBLICATIONS

A Principled Approach to Randomized Selection under Uncertainty: Applications to Peer Review and Grant Funding
Alexander Goldberg, Giulia Fanti, Nihar B. Shah
NeurIPS, 2025 (Spotlight)

Benchmarking Fraud Detectors on Private Graph Data
Alexander Goldberg, Giulia Fanti, Nihar B. Shah, and Zhiwei Steven Wu
ACM KDD 2025

Peer Reviews of Peer Reviews: A Randomized Controlled Trial and Other Experiments
Alexander Goldberg, Ivan Stelmakh, Kyunghyun Cho, Alice Oh, Alekh Agarwal, Danielle Belgrave, Nihar B. Shah
PLOS ONE, 2025

Batching of Tasks by Users of Pseudonymous Forums: Anonymity Compromise and Protection
Alexander Goldberg, Giulia Fanti, and Nihar B. Shah
ACM SIGMETRICS, 2023