

Hadi Khalaf

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Education

Harvard University

Ph.D. in Computer Science, GPA: 4.0/4.0

Advisor: Prof. Flavio du Pin Calmon

- Designing provably robust and scalable tools for AI alignment and evaluation
- Selected coursework: high-dimensional statistics, nonasymptotic statistics (MIT), nonlinear optimization (MIT)

American University of Beirut

BS in Statistics, BE in Electrical & Computer Engineering, Minor in Economics, GPA: 4.18/4.0

Cambridge, MA

2024 – Expected 2029

Beirut, Lebanon

2020 – 2024

Publications

Inference-Time Reward Hacking of Large Language Models (Neural Information Processing Systems, 2025)

H. Khalaf, C. M. Verdun, A. Oesterling, H. Lakkaraju, F. P. Calmon (**Spotlight** Paper)

AI Alignment at Your Discretion (ACM Conference on Fairness, Accountability, and Transparency, 2025)

M. Buyl, H. Khalaf*, C. M. Verdun, L. M. Paes, C. C. V. Machado, F. P. Calmon

🏆 Best Paper at the New England Natural Language Processing Workshop 2025 (1/91 papers)

Research Experience

American University of Beirut

Research Assistant, Supervised by Prof. Ibrahim Abou-Faycal

- Formulated an implicit solution for the information bottleneck problem with non-Gaussian distributions
- Tested new notions of correlation measures for heavy-tailed stochastic processes

Harvard University

Research Fellow at the Economics Department, Supervised by Prof. Elie Tamer

- Helped develop the first Bayesian partial identification algorithms for two-player games
- Created a software package to solve two-player games in underspecified economic setups and tested on US airline data

Work Experience

Beirut Urban Lab

Machine Learning Researcher

- Deployed the first GPT-powered tool to crowdsource and query geospatial data over WhatsApp and ArcGIS
- Boosted user engagement with our surveys by 72% and user retention by 48%

Electrical and Computer Engineering Department at AUB

Head Teaching Assistant and Course Manager

- Led a team of 15 TAs, managed all course logistics, and designed supplemental notes in *Data Structures and Algorithms*
- Helped reduce TA hours by 40% by automating assignment grading using LLMs in *Intro to Programming*

Awards, Honors, and Scholarships

ICML Hudson River Trading Travel Award

2025

Harvard Graduate Prize Fellowship

2024-2029

Awarded to select incoming students across Harvard Graduate School of Arts and Sciences

AUB Penrose Award in the Faculty of Engineering and Architecture

2024

Awarded to the most outstanding graduating student on the basis of scholarship, character, and leadership (~ 0.2% acceptance)

AUB Presidential Scholarship

2020-2024

Full four-year scholarship awarded to the six most outstanding applicants to AUB based on merit (~ 0.4% acceptance)

Research Science Institute Fellow at MIT

2019

Hosted as a researcher in the Nuclear Science and Engineering Department at MIT (~ 3.3% acceptance)

Nationwide Winner in the Lebanese Physics Olympiad

2018

Ranked first over all 11th graders in Lebanon, could not compete at IPHO due to lack of governmental funding