

# Hadi Khalaf

✉ hadikhalf@g.harvard.edu    🔗 www.linkedin.com/in/hadikhalf/

## Education

### Harvard University

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

Advisor: Prof. Flavio du Pin Calmon

- Conducting research on provably robust, reliable, and transparent tools for LLM alignment
- Coursework: information theory, high-dimensional learning, nonasymptotic statistics (MIT), nonlinear optimization (MIT)

### American University of Beirut

*BS in Statistics, GPA: 4.18/4.0*

*BE in Electrical & Computer Engineering, GPA: 4.19/4.0*

- **Final Year Project:** Developed the first GPT-powered tool to crowdsource and query geospatial data, now deployed over WhatsApp at the Beirut Urban Lab

Cambridge, MA

2024 – Expected 2030

Beirut, Lebanon

2020 – 2024

## Publications

**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

*Undergraduate 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 alpha-stable stochastic processes

### Harvard University

*Undergraduate Research Assistant, Supervised by Prof. Elie Tamer*

- Helped develop the first Bayesian partial identification algorithms for binary games
- Created a software package to solve binary two-player games in partial identification setups

Beirut, Lebanon

02/2023 – 05/2024

Cambridge, MA

06/2023 – 09/2023

## Work Experience

### Electrical and Computer Engineering Department at AUB

*Head Teaching Assistant and Course Manager*

- Designed supplemental notes and organized course logistics in *Data Structures and Algorithms*
- Held weekly sessions for 120 students in *Electric Circuits* and 20+ students in *Programming using Python*

Beirut, Lebanon

09/2021 – 05/2024

## Awards, Honors, and Scholarships

### Harvard Graduate Prize Fellowship

Awarded to incoming students across Harvard Graduate School for Arts and Sciences

2024-2030

### AUB Penrose Award in the Faculty of Engineering and Architecture

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

2024

### Qatar Scholarship – Education Above All Program Scholarship

Awarded to top 10% of students in every faculty based on academic merit

2022-2024

### AUB Presidential Scholarship

Full four-year scholarship awarded to top six incoming students to AUB (~ 0.4% acceptance)

2020-2024

### Research Science Institute Scholarship at MIT

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

2019

## Skills

**Programming Languages and Frameworks:** Python, R, SQL, C++, TensorFlow, PyTorch, Keras, Scikit-learn

**Tools:** NumPy, Pandas, Git, PyCharm, VSCode, ArcGIS, AWS, Linux