

# ROCCO DI TELLA

rocco.di\_tella@cfa.harvard.edu

## EDUCATION

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### Universidad de Buenos Aires

*Licenciatura* in Data Science (B.S. + M.Sc. equivalent)

Thesis Advisors: Enzo Tagliazucchi, Gabriel Kreiman

Thesis project: Convolutional Neural Networks as models of human visual attention.

2020 - 2024

GPA: 9.0/10

## RESEARCH EXPERIENCE

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### Research Fellow — SPARK, Harvard Center for Astrophysics

sept 2025 - aug 2026

Advisor: Juan Rafael Martínez Galarza

Simulation Based Inference for correcting instrument loss of photon information for Reflection Models in Black Hole Accretion

### Summer Research Intern — AstroAI, Harvard Center for Astrophysics

june - aug 2025

Advisors: Cecilia Garraffo, Juan Rafael Martínez Galarza

Flow Matching with Transformer architectures to generate multi-modal posteriors for images and X-ray spectra from Galaxies.

### Research Assistant — Applied Artificial Intelligence Lab, UBA

jan - dec 2025

Advisor: Luciana Ferrer

My work is on automatic detection of Hallucinations in Generative Language Models using grey-box calibration methods and white-box probing.

### Research Assistant — Kreiman Lab, Harvard Medical School

jan - dec 2024

Advisor: Gabriel Kreiman

Followed work done during my MSc. thesis to study computational, cognitive and neuroscientific models of human visual attention.

### Research Assistant — Center for A.I. and Neuroscience, UTDT

2021 - 2022

Developed Bayesian methods for efficient experiment design.

## TEACHING EXPERIENCE

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### Teaching Assistant — Universidad de Buenos Aires (UBA)

aug 2025

- Intensive winter course on applications of AI for astrophysics

### Teaching Fellow — Universidad de San Andres (UdeSA)

june - july 2025

- Advanced undergraduate course on Machine Learning

### Teaching Assistant — Universidad de Buenos Aires (UBA)

jan - dec 2024

- Advanced undergraduate course on Statistics
- Graduate course on Causal Inference
- Graduate course on Bayesian Inference

### Teaching Assistant — Universidad Torcuato Di Tella (UTDT)

2022 and 2024

- Undergraduate course on Cognitive Science
- Undergraduate course on Statistics

## AWARDS

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- SPARK postbaccalaureate program — Harvard Center for Astrophysics** 2025  
Fellowship award as a research scholar at the Harvard & Smithsonian Center for Astrophysics.  
Fully funded salary for 12 months of full-time research.
- Visiting Student Fellowship Award — Smithsonian Astrophysical Observatory** 2025  
Fellowship award as a short-term research scholar at AstroAI (Harvard & Smithsonian).  
It covers a Stipend, Housing and Relocation to Boston for a 10 week duration.
- AI Safety Scholarship — AISAR (AI Safety Argentina)** 2025  
Scholarship that includes a stipend for 6 months of research and \$3000 of compute.

## ACADEMIC PUBLICATIONS

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- Rieznik A., Gabaldon C., Gonzalez Lima C., Futoransky A., Di Tella R.  
“Fast nonparametric Bayesian framework for on-the-fly adaptive design optimization using discrete priors”  
(*under review*)
- Rieznik A., Di Tella R., Schvartzman L., Babino A. (2021)  
“Optimum Integration Procedure for Connectionist and Dynamic Field Equations”, *Frontiers in Neuro-robotics*
- Cavanna F., Pallavicini C., Milano V., Cuiule J., Di Tella R., González P., Tagliazucchi E. (2021)  
“Lifetime Use of Psychedelics is Associated With Better Mental Health Indicators During the COVID-19 Pandemic”, *Journal of Psychedelic Studies*

## CONFERENCE PRESENTATIONS

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- “Building Honest Agents through introspection”, AstroAI workshop, 2025 (poster).
- “Finding Waldo”, Simposio Científico de Inteligencia Artificial y Aplicaciones, 2024 (poster).
- “A Bayesian Look”, Bayes Plurinacional Workshop, 2024 (short talk and poster).
- “Fast Nonparametric Bayesian Framework for On-the-Fly Adaptive Design Optimization”, Bayes Plurinacional Workshop, 2023 (poster).
- “A Massive Experiment on Choice Blindness”, Sociedad Argentina de Neurociencia, 2017 (poster).

## INDUSTRY EXPERIENCE

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- Data Scientist — GRIDX Biotech Venture Capital** 2021 - 2022  
Started a data consulting team which grew into an independent company.
- Data Scientist — El Gato y La Caja** 2017 - 2021  
Engaged in data storytelling aimed at a general audience and designed experiments for cognitive science research. Click [here](#) to see showcased work.

## TECHNICAL SKILLS

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- Technical knowledge: Deep Learning, Computer Vision, Generative Language Models, Interpretability, Causal Inference, Bayesian Statistics, Probabilistic Programming.
- Programming languages: Python, R, Julia
- Developer Tools: Git, AWS, linux, nvim