

# Bayesian causal data science

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Nationality Swiss - Argentine  
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## Bayesian inference. Computer science. Social anthropology.

- Promoter of the Latin American Bayesian community ([bayesdelsur.com.ar](https://bayesdelsur.com.ar))
- Causal reasoning based on the strict application of probability
- Developer and maintainer of open software in Python, Julia and R
- Solid experience in machine learning software development
- Outstanding methodological background in social sciences
- Fluent teamwork within interdisciplinary groups
- Scientific reports accessible to diverse audiences

## Work experience

- 2023 – *Full-time researcher* – Computer Science Department UBA  
Research activities in applied data science, algorithms and artificial intelligence.
- 2022 – *Bayesian causal data science* – Laboratorios de Métodos Bayesianos  
Specification and evaluation of alternative causal models in finance, health, sports and forensics.
- 2016 – *Graduate teaching assistance in Computer Science* – Buenos Aires University  
Teaching activities in various courses at the Computer Science degree.  
Master's thesis director in Computer Science and Seminar on Bayesian Inference.
- 2016 – 2022 *Doctoral Fellowship in Computer Science* – Instituto de Ciencias de la Computación  
[Artificial Intelligence Lab](#) and [High Performance Computing Lab](#).  
Bayesian analysis of learning in video game communities (defense 2023)
- 2015 – 2016 *Coordinator* – National Audiovisual Audience Measurement System  
Coordinator of the areas of social sciences and computer technical support.  
Administration of the database and the automatic survey system.
- 2012 – 2013 *Social work* – Ministerio de Desarrollo Social, Argentina  
Impact evaluation of public policies and counseling for the “Argentina Trabaja” program.
- 2008 – 2016 *Data Scientist* – Grupo Antropocaos  
Formal methods in social sciences. Simulation and predictive models. Online bets.
- Association** *Co-founder* – Bayes Plurinacional  
Organizer of the Bayesian Plurinational Community ([bayesdelsur.com.ar](https://bayesdelsur.com.ar)).

2016 – 2022  
2012 – 2015  
2005 – 2009

## Education Buenos Aires University

PhD in **Computer Science**. (Defense 2023)  
Licentiate in Computer Science. (Suspended after promotion to PhD)  
Licentiate (BSc + MSc) in **Anthropological Sciences**.

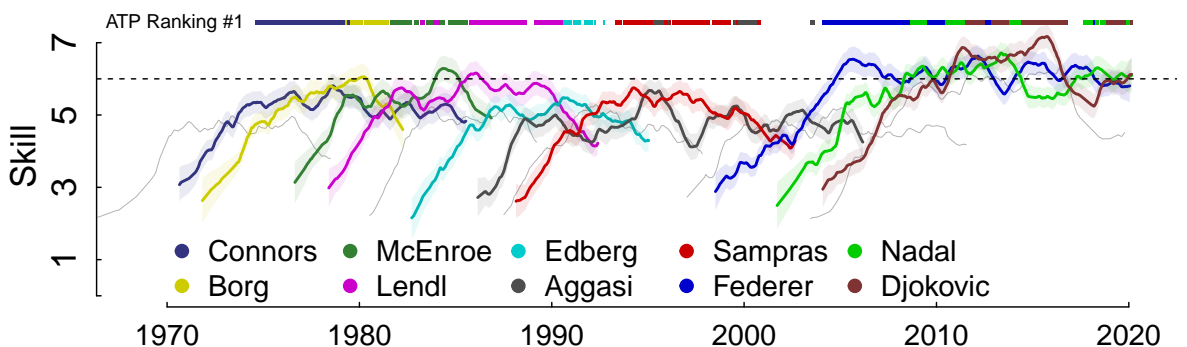
## Teaching Buenos Aires University

2020 – *Bayesian Inference* (with C#, Julia, Python and R). Faculty of Exact and Natural Sciences.  
2019 – *One-on-one mentoring*. Director of master's thesis in the Department of Computer Science.  
2019 – 2019 *Algorithms and data structures I* (with C++). Department of Computer Science.  
2018 – 2019 *Introduction to Computer Science* (with Python). Department of Computer Science.  
2018 – 2018 *Computational Social Science* (with R). Departments of Anthropology and Computer Science.  
2016 – 2017 *Functional programming* (with Haskell). Department of Computer Science.  
2010 – 2010 *Artificial Societies and Ethnography* (with Netlogo). Department of Anthropological Sciences.

## Scientific research

### Software

The state-of-the-art skill estimator: [github.com/glandfried/TrueSkillThroughTime](https://github.com/glandfried/TrueSkillThroughTime)  
Developer. Efficiently inference through distributed message-passing algorithms and analytical approximation methods, even in causal networks with millions of nodes and irregular structures.



### Articles

- Landfried, G., Cairo G., Mocskos E. *Exploring the effect of network structure on individual learning: a longitudinal study of an online Go game community*. Preprint Github 2022. [Download](#).
- Landfried, G; *Properties of the epistemic-evolutionary cost function. Lessons from the intelligence of life*. Preprint Github 2023.
- Landfried G., Mocskos E. *TrueSkill Through Time: reliable initial skill estimates and historical comparability in Julia, Python and R*. In press at Journal of Statistical Software. 2023. [Download](#).
- Landfried, G; Fernandez Slezak, D; Mocskos, E: *Faithfulness-boost effect: Loyal teammate selection correlates with skill acquisition improvement in online games*. PLoS one. 2019.

### Software tools

Python (PyMC3, Scipy, Sklearn, Pandas, Numpy, TensorFlow, Virtualenv, ...), Julia (Turing, ...), R (Stan, ...), C# (Infer.NET), C++ (MPI), Haskell, Bash (screen, ssh, vi, rsync, awk ...), SQL, NoSQL, Git, Docker, Latex (Tikz), Html, ...