### **Personal information**

Name / Surname

Address

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Nationality

Date of birth

Web

Landfried, Gustavo Andrés

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Swiss - Argentine

October, 1985

https://glandfried.github.io/

General description

Social anthropologist with a PhD in computer science, I am a Bayesian Inference Engineer working on data science, machine learning and causal inference.

In contrast to ad-hoc solutions, the strict application of probability theory (Bayesian approach) guarantees intersubjective agreements in contexts of uncertainty, the foundation of empirical truths. In addition to offering unique and intuitive solutions, it allows to focus attention on the real problem since the specification of causal models is done using graphical methods that, not requiring special mathematical knowledge, are accessible to everyone. Although it is known to be the correct logic for the empirical sciences, its adoption was historically limited due to its high computational cost: instead of selecting a single hypothesis, the Bayesian approach evaluates each and every hypotheses according to the empirical and formal evidence (data and causal models). In recent decades, however, these costs have been largely overcome thanks to the development of efficient approximation methods and message-passing algorithms between model variables. The concrete example of all this is the publication of the first open version of the video game industry's state-of-the-art skill estimator (which I released in Python, Julia and R), which in addition to being intuitive for users, it solves inference efficiently even in causal networks with millions of nodes and irregular structures.

## Work experience

2022 / 08 – In progress

2016 / 02 – In progress

2016 / 06 – 2022 / 06

2015 / 07 – 2016 / 03

2014 / 01 - 2015 / 06

2012 / 08 - 2013 / 05

2008 / 08 - 2016 / 06

Bayesian Inference Engineer - Freelance at UpWork

Machine Learning. Software development. Probabilistic programming. Git. Docker. ETL processes.

Graduate teaching assistance in Computer Science - Facultad de Ciencias Exactas y Naturales Data structures. C++. Algorithms. Python. Functional programming. Haskell. Software specification.

Doctoral Fellowship in Computer Science – Instituto de Ciencias de la Computación CONICET Artificial Intelligence. High Performance Computing. Bayesian and Causal Inference. Graphical models. Julia.

Coordinator of the areas of Public Opinion and Informatics – UNSAM-PASCAL

Database administrator. SQL. Measurement of social media. Survey design. Data analysis. R.

Data Engineer - High Performance Computer Lab. UBA.

Distributed computing. Parallel Programming. MPI. Shell script. Distributed Database.

Public policy evaluation - Ministerio de Desarrollo Social, Argentina

Ethnography. Social work. Impact evaluation. Community policies.

Data Scientist - Freelance at Grupo Antropocaos

Predictive models. Online betting. Optimal decision making. Database creation. Web scraper.

### Software

The state-of-the-art skill model.

Article

Landfried G., Mocskos E. *TrueSkill Through Time: reliable initial skill estimates and historical comparability in Julia, Python and R.* In review at Journal of Statistical Software. Github 2021. Download

Code

github.com/glandfried/TrueSkillThroughTime (Julia, Python and R)

### Education

2016 / 06 - 2022 / 06 2012 / 08 - 2015 / 12 2005 / 03 - 2009 / 12

Licentiate in Computer Science, Buenos Aires University (Suspended after promotion to PhD) Licentiate (BSc + MSc) in Anthropological Sciences, Buenos Aires University.

# **Teaching**

2020 / 02 - In progress 2019 / 08 - In progress 2019 / 02 - 2019 / 08 2018 / 08 - 2019 / 08 2018 / 08 – 2018 / 12 2016 / 02 - 2017 / 08 2010 / 02 - 2010 / 07

### University of Buenos Aires

PhD in Computer Science, Buenos Aires University

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

## **Scientific events**

 $\rightarrow$  Poster

Poster Poster

# Languages

Computer Science Research Day. Université de Buenos Aires, Argentine. 2022 3rd ESLR. Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany. 2019 Machine Learning Summer School, MLSS. Torcuato Di Tella University, Argentina. 2018

Spanish	French	English
Native	C1	B2