



Gaston Mazzei

Date of birth: 16 Sep 1995 | **Nationality:** Argentinian, Italian | **Gender:** Male |

(+54) 91123060601 | gastonmazzei95@gmail.com | gastonmazzei.github.io |

6900, Lugano, Switzerland

● WORK EXPERIENCE

3 JAN 2021 – CURRENT – Buenos Aires, Argentina
NETWORK AUTOMATION ENGINEER – IQUALL NETWORKS INC.

As a Network Automation Engineer at Iquall Networks my role is to design implement and test algorithms using Python in order to provide automated solutions to international telecommunication companies inside proprietary software that consists of an open-source ecosystem.

28 JAN 2020 – 27 NOV 2020 – Buenos Aires, Argentina
RESEARCH INTERNSHIP (MASTER) – ICAS

ICAS is the International Center for Advanced Studies. Under the research internship AI-Friendly was built (Masters' thesis)

1 NOV 2018 – 1 NOV 2019 – El Calafate, Argentina
DATA ANALYTICS / BUSINESS INTELLIGENCE (PART-TIME CONSULTANT) – KOSTEN AIKE HOTEL

Part Time Business Intelligence (or Data Analytics) consultant (freelance) for a four-star hotel in the Argentinian southern Patagonia: metrics such as occupation and per capita consumption were computed on a monthly basis along with an estimation of the hotel's carbon footprint in an attempt to improve its eco-friendliness.

RESEARCH INTERNSHIP (BACHELOR) – CNEA - LEC (NATIONAL ATOMIC COMMISSION AND QUANTUM ELECTRONICS LABORATORY)

Undergraduate research internship at CNEA-CAC (National Atomic Energy Commission) and LEC-UBA (Quantum Electronics Laboratory); a microfluidic device was designed and manufactured in order to trap yeast cells and study their cell membrane

● EDUCATION AND TRAINING

25 MAR 2015 – 22 MAR 2021 – Ciudad Autonoma de Buenos Aires, Argentina
MASTER DEGREE IN PHYSICS – UBA (Buenos Aires University)

6-year degree; internationally equivalent to a MSc Physics degree and formally known in Spanish as "Licenciatura en Ciencias Fisicas". The University of Buenos Aires is a 200-year-old university that ranks 61 in the QS world ranking 2021 (transcripts: original & translated; thesis on YouTube)

8/10 | <https://www.youtube.com/watch?v=KNp6kqE5dSA>



14 MAR 2015 – 31 AUG 2020

BACHELOR IN EXPERIMENTAL PHYSICS – University of Buenos Aires

Physics Research Assistant degree awarded by the University of Buenos Aires in 2020. Internationally equivalent to a **Bachelor in Experimental Physics**; it is an intermediate degree for the MSc Physics degree and it can be earned enrolling in extra optional experimental courses (transcript; grade: 8/10)

8/10

JUN 2016 – JUL 2021 – Argentina

COMPUTER SCIENCE & MATHEMATICS - SINGLE COURSES – DC-UBA, DM-UBA, IC-UBA & ICAS-UNSAM

DC-UBA (Department of Computer Science, Buenos Aires University)

- Image Processing (2021)
- Management of Software Projects (2021)
- Algorithms and Data Structures 1 (2021)

DM-UBA (Department of Mathematics, Buenos Aires University)

- Mathematical Models of Complex Social Systems (2017)
- Quantitative Financial Analysis (2016)

ICAS-UNSAM (International Center for Advanced Studies, Saint Martin University)

- Machine Learning (2020)

IC-UBA (Institute of Calculus, Buenos Aires University)

- Exploratory Data Analysis (2018)

sources: [\[1\]](#)[\[2\]](#)

● PUBLICATIONS

Image Inpainting Applied to Art: Completing Escher's Print Gallery

2021

Image Inpainting applied to M.C. Escher's Print Gallery at Proceedings of the LatinX in AI (LXAI) Research workshop at ICML 2021 (accepted - july 2021 - [sample](#))

Delta Hedging with Transaction Costs: Dynamic Multi-Scale Strategy using Neural Nets

2021

a portfolio strategy is parametrized by hedging at different periods and computing the weights with a convolutional 1D neural network (accepted and will be published in May 2021 in MACI VIII; the journal of the Argentinian Society of Applied Mathematics; [paper](#))

Option Pricing Model with Transaction Costs

2017

Numerical simulations of the Black Scholes PDE with non-differentiable transaction costs and the analytical solution for exponential costs (published in MACI VI; the journal of the Argentinian Society of Applied Mathematics; [paper p.569-573](#))



● LANGUAGE SKILLS

Mother tongue(s): SPANISH

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	C2	C1	C1	C1	C1
FRENCH	A2	A2	A2	B1	A1
ITALIAN	A1	A2	A2	A2	A1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

● CONFERENCES AND SEMINARS

1 JUN 2021

ML Collective Open Collab Research Jam 2

Presented [AI-Friendly](#) in a [research jam](#) organized by ML Collective (an independent nonprofit organization that supports open collaboration in machine learning research)

5 MAY 2021 – 6 MAY 2021

LXAI Social @ ICLR

Presented the Escher Inpaint Project as part of 'ML Techniques for Art Reconstruction' in the pitch for research projects applying for mentorship at ICLR Social Virtual Room [n4416](#) inside LXAI's event [LatinX in AI Social at ICLR 2021](#) ([presentati on link](#); and [further proof](#))

5 MAY 2021 – 5 MAY 2021

MACI VIII - ASAMACI

Presented the recent publication 'Delta Hedging with Transaction Costs: Dynamic Multi-Scale Strategy using Neural Nets' at the MACI VIII virtual sessions; the Argentinian Society of Computational and Industrial Applied Mathematics ([link to presentation](#))

29 MAR 2021 – 29 MAR 2021

ML Collective Open Collab Research Jam 1

Presented the [Escher Inpaint Project](#) in a [research jam](#) organized by ML Collective (an independent nonprofit organization that supports open collaboration in machine learning research)

8 NOV 2020 – 13 NOV 2020

Giambiagi Winter School, 22nd edition: "Artificial Intelligence and Deep Learning in Physics"

Presented a virtual poster about "[www.AI-Friendly.com: an online free dense neural network](#)" at the "[22nd Giambiagi Winter School: Artificial Intelligence and Deep Learning in Physics](#)"



1 MAY 2017

MACI VI - ASAMACI

Presented the paper 'Option Pricing Model with Transaction Costs' at MACI VI's Quantitative Finance Session ([poster](#))

1 MAY 2017

DF-UBA

Presented the results of the calibration and characterization of a standing-wave optical resonator Nd:YAG laser at the Department of Physics inside the Buenos Aires University ([poster](#))