

António Leitão

MATHEMATICIAN · DATA SCIENTIST

Portuguese nationality, born 04/07/1996

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EDUCATION

M.Sc. in Data Science and Advanced Analytics

NOVA UNIVERSITY LISBON (INFORMATION MANAGEMENT SCHOOL)

- Thesis: Topological Expressiveness of Neural Networks
- Supervisor: Dr. Giovanni Petri

Lisbon, Portugal

Sep. 2018 - Ongoing

Erasmus Studies Program

GEORG-AUGUST UNIVERSITÄT

Full scholarship awarded for a 6-months study period at Göttingen University

Göttingen, Germany

Mar. 2017 - Jul. 2017

B.Sc. in Mathematics

NOVA UNIVERSITY LISBON

Lisbon, Portugal

Sep. 2014 - Aug. 2018

International Baccalaureate Diploma Programme

COLÉGIO PLANALTO

Lisbon, Portugal

Sep. 2010 - May. 2014

PUBLICATIONS

- | | | |
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| 2020 | Giovanni Petri and António Leitão , "On the Topological Expressive Power of Neural Networks" In: <i>NeurIPS 2020 Workshop on Topological Data Analysis and Beyond</i> , https://openreview.net/forum?id=I44kJPuvqPD | Online |
| 2020 | António Leitão and Giovanni Petri , "On the Topological Complexity of Decision Boundaries" In: <i>50th Scientific Meeting of the Italian Statistical Society</i> , pp. 588-594 | Pisa, Italy |

TEACHING

Masters' of Data Science and Advanced Analytics

NOVA UNIVERSITY OF LISBON (INFORMATION MANAGEMENT SCHOOL)

- Taught practical classes of Data Visualization. The expected student outcome was the creation of online interactive dashboards for efficient visualization of high volumes of data.

Lisbon, Portugal

Sep. 2019 - Feb. 2020

EXPERIENCE

ISI Foundation

RESEARCH IN TOPOLOGICAL DATA ANALYSIS

- Full scholarship awarded (by Nova University) to intern at the research group of Topological Data Analysis. (collective initiatives halted due to Covid-19.)
- Research on "Topology of Learning": initiative to understand Neural Networks through Algebraic Topology, under the supervision of Dr. Giovanni Petri, since Feb. 2019.

Turin, Italy

Feb. 2020 - Ongoing

Ageas Seguros

PRICING INTERN

- Internship working on an actuarial group for non-life insurance pricing.

Lisbon, Portugal

Feb. 2017 - Mar. 2017

HONORS & AWARDS

- | | | |
|------|--|--------------------|
| 2020 | 2nd Place , Nokathon 2020: Nokia's international machine learning competition | Online |
| 2019 | 1st Place , Nokathon 2019: Nokia's international machine learning competition | Lisbon, Portugal |
| 2019 | Scholarship , Erasmus scholarship to pursue an internship in ISI Foundation and the University of Turin | Turin, Italy |
| 2018 | Scholarship , Winner of a fully funded scholarship to participate in a 10-day workshop on Geographical Information Systems (GIS) in Delft University. | Delft, Netherlands |
| 2016 | Scholarship , Merit scholarship to fund a 6 months erasmus study period at Georg-August Universität in Göttingen, Germany. | Göttingen, Germany |

LANGUAGES

Portuguese	<div><div></div></div>	Native
English	<div><div></div></div>	Fluent
Italian	<div><div></div></div>	Advanced
German	<div><div></div></div>	Adept (A2)

PROGRAMMING

Python	<div><div></div></div>	Proficient
LaTeX	<div><div></div></div>	Comfortable
C	<div><div></div></div>	Currently Learning

EXTRACURRICULAR ACTIVITY

SPORTS

Volleyball

Lisbon, Portugal

AEFT

20014 - 2019

- Played volleyball for the university team AEFT in the national university championship.
- Awarded best player of the university in the first year. In charge of player scouting for the subsequent years.

SPORT LISBOA E BENFICA (S.L.B.)

2006 - 2014

- Played volleyball for Sport Lisboa e Benfica, winning most regional championships and consistently achieving good ranking in the national championship.
- Briefly participated in the Portuguese National Volleyball team (under-18).

MUSIC

Conservatory of Lisbon

Lisbon, Portugal

STUDENT

2008 - 2014

- Studied piano, musical theory and jazz. Achieved grade 5 on piano.

OTHER PROJECTS

Ongoing

- Self-taught in guitar and bass guitar. Currently learning the drums.
- Still involved in multiple amateur rock bands, some of which haven't failed yet.

VOLUNTEERING

João Paulo II center for the disabled.

Fátima, Portugal

VOLUNTEER

- Volunteer work in the center for disabled in Fátima, Portugal for several weeks over a period of 3 years

Santa Casa da Misericórdia.

Azores, Portugal

VOLUNTEER

July 2015

- Volunteer work on a geriatric center in Azores, Portugal for several weeks.