



# Victor Fernando Lopes de Souza

Engineering Student at  
UFSC and CentraleSupélec

- 8 July 1999, Brazilian
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## About Me

Passionate for innovation and technology. Interested in approaching complex problems and grasping complex concepts.

Looking for a PhD position starting in September 2024.

Enthusiast of Mathematics, Computing, Artificial Intelligence, Machine Learning and Stochastic Systems.

## Skills

### Development and Software

- Python
- Pandas
- Numpy
- Tensforflow
- Keras
- Matlab
- Simulink
- Git
- JavaScript
- Linux
- LaTeX
- R
- Java
- C++
- PHP
- SQL

### Academical Background

- Control Systems
- Temporal Logic
- Probabilistic Models
- Optimization
- Automata
- Algorithms

### Languages

- Portuguese (native)
- English (C1)
- French (C1)
- Spanish (B2)

## Education

- 2018-2024 UFSC - Universidade Federal de Santa Catarina  
Control and Automation Engineering  
PAM - Advanced Mathematics Program  
Florianópolis (BR)
- 2021-2023 CentraleSupélec  
Engineering, with mention in Control  
Gif-Sur-Yvette (FR)
- 2022-2023 Université Paris-Saclay  
Master in Systems, Signals and Image Processing  
Gif-Sur-Yvette (FR)
- 2021-2022 Paris IV - Sorbonne Université  
Bachelor's degree in Philosophy  
Paris (FR)
- 2014-2017 IFSC - Instituto Federal de Santa Catarina  
Engineering Technician in Electronics  
Florianópolis (BR)

## Work Experience

- 2023 Data Science Intern  
at Amadeus IT Group  
Nice (FR)  
Developed an advanced machine learning system integrated into the Amadeus Smart Cache. Prototype submitted for patent application.
- 2020-2021 Student Researcher in Neural Nets  
at EMBRAPPII, in partnership with Central Energia (R&D on trading)  
Florianópolis (BR)  
Worked on building, training, and evaluating LSTM networks regarding the prediction of precipitation data for energy trading.
- 2018-2021 Student Researcher in Algebraic Topology  
at IMPA (Brazilian Institute of Pure and Applied Mathematics)  
Florianópolis (BR)  
Research on advanced topics related to Geometric Group Theory. Prepared an introduction video and presented it in a congress in Paris.
- 2018-2019 Calculus Teaching Assistant  
at the Mathematics Department, UFSC  
Florianópolis (BR)  
Hosted office hours to assist undergraduate students.
- 2016-2017 Intern as Web Developer  
at Oi S.A. (third largest telecommunication company in Latin America)  
Florianópolis (BR)  
Developed PHP, Shell, BASIC and Kernel scripts.

## Projects

- 2022 Training Neural Networks with Kalman Filters  
Implementation of modern control methods for training Neural Nets and use of the Kalman filter as an optimization algorithm  
Gif-Sur-Yvette (FR)
- 2022 Exploring portfolio optimization methods, with BNP  
Implementation and Evaluation of some portfolio allocation methods  
Gif-Sur-Yvette (FR)
- 2022 System for inform on cancer, with Health Guide AI  
Testing of different recommendation algorithms for this purpose  
Gif-Sur-Yvette (FR)

## Honours and Awards

- 2021 BRAFITEC, Merit Scholarship for Double Degree in France
- 2019 Qualified to Final Phase, OBMU (National University Maths Olympiad)
- 2018 Freshman Award, OEI (Organization of Ibero-American States)
- 2017 Silver Medal, OBMEP (National High School Mathematics Olympiad)
- 2016 Silver Medal, OBMEP (National High School Mathematics Olympiad)
- 2014 Honourable Mention, OBMEP (National High School Maths Olympiad)