



# Victor Fernando Lopes de Souza

Engineering Student at CentraleSupélec

- 8 July 1999, Brazilian
- 1, rue Joliot Curie  
91190 Gif-Sur-Yvette, France
- +33 0665923179
- victorfer.lopsouza@student-cs.fr

## About Me

Passionate for innovation and technology. Interested in approaching complex problems and grasping complex concepts. Enthusiast of Mathematics, Computing, Artificial Intelligence, Machine Learning, System Modeling and Control, Philosophy, Quantum Physics, Financial Markets, Cybersecurity, Blockchain and Discrete Automation.

## Skills

### Development and Software

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

### Academical Background

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

### Languages

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

## Education

- 2022-2023 Université Paris-Saclay Gif-Sur-Yvette (FR)  
Master in Systems, Signals and Image Processing
- 2021-2023 CentraleSupélec Gif-Sur-Yvette (FR)  
Engineering, with mention in Control GPA: 3.65/4
- 2018-2023 UFSC - Universidade Federal de Santa Catarina Florianópolis (BR)  
Control and Automation Engineering GPA: 3.58/4  
PAM - Advanced Mathematics Program GPA: 3.86/4
- 2021-2022 Paris IV - Sorbonne Université Paris (FR)  
Bachelor's degree in Philosophy
- 2014-2017 IFSC - Instituto Federal de Santa Catarina Florianópolis (BR)  
Engineering Technician in Electronics

## Work Experience

- 2020-2021 Student Researcher in Neural Nets Florianópolis (BR)  
*at EMBRAPPII, in partnership with Central Energia (R&D on trading)*  
Worked on building, training, and evaluating LSTM networks regarding the prediction of precipitation data for energy trading
- 2018-2021 Student Researcher in Algebraic Topology Florianópolis (BR)  
*at IMPA (Brazilian Institute of Pure and Applied Mathematics)*  
Research on advanced topics related to Geometric Group Theory
- 2018-2019 Calculus Teaching Assistant Florianópolis (BR)  
*at the Mathematics Department, UFSC*  
Developed PHP, Shell, BASIC and Kernel scripts to automate tasks related to the management, monitoring and control of the backbone
- 2016-2017 Intern as Web Developer Florianópolis (BR)  
*at Oi S.A. (third largest telecommunication company in Latin America)*  
Developed PHP, Shell, BASIC and Kernel scripts to automate tasks related to the management, monitoring and control of the backbone

## Projects

- 2022 Training Neural Networks with Kalman Filters Gif-Sur-Yvette (FR)  
Implementation of modern control methods for training Neural Nets and use of the Kalman filter as an optimization algorithm
- 2022 Exploring portfolio optimization methods, with BNP Gif-Sur-Yvette (FR)  
Construction, Implementation and Evaluation of different portfolio allocation methods
- 2022 System for inform on cancer, with Health Guide AI Gif-Sur-Yvette (FR)  
Testing of different recommendation algorithms for this purpose
- 2021-2022 Neural Nets: Attacks and Robustness, with SystemX Gif-Sur-Yvette (FR)  
Study and implementation of some attack methods on NN systems

## 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)