# Vítor Amorim Fróis

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#### SUMMARY

My academic experiences and skills have grown from my teenager hobbies: playing video games, chess and customizing my computer. During my teenage I joined Centro Federal de Educação Tecnológica (CEFET), a technical college in my city, where I obtained Electronics Technician diploma, competed in robotics tournaments and completed a scientific research on building a biometric system for CEFET's restaurant, all which grown my skills in team management, programming, electronics and mechanics.

With the experience acquired at CEFET, I decided to start a Computer Science Bachelor at Universidade de São Paulo (USP), in which I could find myself growing as a professional and person. At USP I participated in DATA ICMC activities such as study groups, project and events and completed a scientific research on introduction to Complex Networks. During 2023, I had the opportunity to work as Data Engineer intern at Clave Capital, where I learned more about finances and had a great experience with the market.

Currently, I am finishing the bachelor studies. I coordinate secretarial duties and participate at Deep Learning and Data Engineering study groups at DATA ICMC, contribute actively to Mesa Project open source library and conduct a scientific research in the convergence of complex systems and machine learning. I believe all activities which contribute to my comprehension of DevOps, ML theory and applied systems, and soft skill as group work, critical thinking, problem solving, public speaking and leadership.

## **EDUCATION**

### Centro Federal de Educação Tecnológica de Minas Gerais (CEFET)

Technician in Industrial Electronics

 $\begin{array}{c} \text{Jan 2018 - Dec 2020} \\ \textit{CEFET Website} \end{array}$ 

# Universidade de São Paulo (USP)

Undergraduate at Computer Science

Jan 2021 - Dec 2025

USP Website

# WORK EXPERIENCE

#### **Applied Machine Learning Scientific Research**

Machine learning-based prediction of Sznajd model in complex networks with Prof. Francisco Rodrigues.

Jan 2024 - Today No Repository Yet

⇒ This project aims to use machine learning to predict with high accuracy dynamic variables associated with the Sznajd model in Complex Networks, contributing to a better understanding of the physics of social phenomena.

#### Intern at Clave Capital

Internship at Clave Capital Fund Management - Risk

Dez 2022 - Sep 2023

Clave Website

⇒ Working with python, scripts, automation and data visualization.

#### Complex Networks Scientific Research

Scientific Research student focused on Complex Networks with Prof. Diego Amâncio

Aug 2022 - Aug 2023 Research Repo at GitHub

⇒ Complex networks, linear algebra and random network models.

#### **Embedded Systems Scientific Research**

Professor Advisor: Mateus Antunes Oliveira Leite

Jul 2019 - Jul 2020

Final Internship Report at LinkedIn

⇒ During one year, a biometric system was developed to substitute RFID system (identification with cards) on CEFET's restaurant. Techniques of programming and to deal with biometric readers were learned.

### **PROJECTS**

Mesa Colaborator

Abr 2023 - Todav

Mesa is an open-source Python library for agent-based modeling.

Mesa Git Page

⇒ Collaborating in open source initiative which allows modelling complex systems in Python: #2084, #138.

**DATA** Coordinator

Aug 2023 - Today

DATA is an extension group at USP focused on Data Science

DATA's Website

 $\Rightarrow$  Coordinating Machine Learning Projects which can be found at *DATA's Github* .

## **Hugging Face Colaborator**

Mar 2022 - Today

Translating HF Transformers Tutorials to Portuguese

Hugging Transformers Git Page

 $\Rightarrow$  A team of DATA's members grouped with Hugging Face, open source ML company, with the objective of translating Transformers tutorials to Portuguese.

# SKILLS

Computer Science topics: Complex Networks, Data Science, Functional Programming, OOP, Data Structures and Algorithms, Linear Algebra File Organization, Open Source Systems, Dynamic Programming, Discrete Math

Programming languages: C, C++, Python, React, JavaScript, Java, Jupyter

Languages: Portuguese (Native), English (Advanced), Spanish (Basic)

Miscellaneous: Git, Linux, Shell, LaTeX, Arduino, Chess

# ACHIEVEMENTS

| OBA Gold Medal         | Won gold medal at national astronomy contest (Olimpíada Brasileira de Astronomia)       | 2020 |
|------------------------|---|------|
| OBR Silver Medal       | Won silver medal at robotics theory national contest (Olimpíada Brasileira de Robótica) | 2019 |
| Chess National Master  | Obtained NM title from Confederação Brasileira de Xadrez                                | 2017 |
| Chess Candidate Master | Obtained CM title from Fédération Internationale des Échecs                             | 2013 |