

Pedro Ferreira

ML Engineer

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Summary

I am a dynamic, hard-working, self-learning ML Engineer with a proven track of results both in research and complex, high-load, real-world applications

Skills

Python • Machine Learning • Mlops • Deep Learning • SQL • Reinforcement learning • Recommender systems • Numerical methods

Work Experience

Head of Artificial Intelligence

Jun 2021 – present

Snow Fox AI • Full-time

Remote

Technologies: Python • Mlops • Deep Learning • Reinforcement learning • SQL

I have worked on bringing systemic improvements to our environment, attracting and retaining top talent, and establishing and managing both operational and business relationships with clients and prospects

- Designed and executed a complete change in the architecture of our recommendation serving systems, reducing the infrastructure costs by 80% while handling over 1 billion requests per month
- Designed the expansion of our AI capabilities to include NLP and CV, which now make up more than 15% of the yearly revenue of our company with one of the highest margins
- Established and strengthened relations both in the media and in the financial sector, helping Snow Fox to become a leading player in these markets
- Led consulting projects in both ML and DataEng, doubling the consulting revenue in comparison with the previous year
- Proudly managed an elite team of self-motivated, ambitious, hard-working, independent, resourceful engineers

Head of Research & Development

Aug 2020 – May 2021 • 9 mos

Snow Fox AI • Full-time

Remote

Technologies: Python • Deep Learning • Reinforcement learning • Mlops • Numerical methods

I have worked on developing new products, mapping and introducing improvements to recommendation systems, and conceiving solutions to allow our products to support complex, advanced use cases

- Suggested improvements that increased the performance of our recommender systems by 50% over a year
- Conceived, designed, developed, and implemented a pricing solution, which now is responsible for 20% of the company's revenue
- Worked close to leading research universities to consolidate our brand and attract the best talent, increasing 5x the overall amount of applicants per job position and 25x the amount of out-of-the-region applicants
- Worked as a subject matter expert in ML and DataEng consulting projects

Junior ML Engineer

Oct 2019 – Jul 2020 • 9 mos

Snow Fox AI • Full-time

Halifax, Canada

Technologies: Python • Machine Learning • Recommender systems • PHP • SQL

I have worked on developing and maintaining personalized advertisement recommendation systems

- Migrated a 35 APIs legacy system from PHP to Python, fully erasing the company's backend tech debt
- Designed and implemented an enhanced recommendation architecture, increasing the click rate on ads by 65%
- Established company-wide MLOps guidelines that sped up the ML lifecycle iteration time by 35%

Research Intern

Apr 2019 – Sep 2019 • 5 mos

Dalhousie University • Internship

Canada

Technologies: Python • Machine Learning • Deep Learning • Statistics • Numerical methods

I've worked applying Artificial Intelligence for Cyber-Security in settings of extreme class imbalance

- During my internship, I published a paper at a top conference on cyber-security

Research Intern

Aug 2018 – Apr 2019 • 8 mos

Universidade de Brasília • Internship

Brasília, Brazil

Technologies: Python • MATLAB • Embedded Systems • Bluetooth • Machine Learning

I've worked to develop corrections to improve the performance of the MUSIC algorithm when applied for detecting direction-of-arrival under adverse circumstances

- During my internship, I published two papers at a local conference
- One of my papers was recognized with an Honorable Mention

Research Intern

Jul 2017 – Jul 2018 • 1 yr

Universidade de Brasília • Internship

Brazil

Technologies: Python • MATLAB • Machine Learning

Develop an algorithm for estimating the location of faults in transmission lines based on electromagnetic signals

- During my internship, I published one paper at a local conference
- The algorithm proposed in my paper established a new state-of-the-art, being nominated for the conference's Best Paper Award
- After I left for another position, my research ideas spun off into a second improvement, leading to the publishing of another conference paper, of which I am also a co-author

Projects

IEEE Computational Intelligence Society Chapter

Jul 2018 – present

20 coworkers

Technologies: Python • Machine Learning • Deep Learning

- Founding Member and Former Chairman (twice)
- During my term as Chairman, the IEEE CIS at UnB has flourished, becoming a vibrant community of ML students, academics, working professionals, and government officers
- During my term as Chairman, the IEEE CIS at UnB was recognized by the IEEE CIS worldwide as the Outstanding Chapter of the Year in 2021 with the following citation for the award: "For promoting computational intelligence among students, industry, and academia". This was a first both for a student-run chapter and for a Brazilian organization.

Educations

Bachelor's degree: Electrical Engineering

Mar 2015 – Dec 2019 • 4 yrs 9 mos

Universidade de Brasília

Brazil

Grade/GPA: Rank: 1st out of 118

Relevant Course Work: Principles of Computing, Algorithms and Data Structures, Introduction to Net-working, Fundamentals of Computational Intelligence, Data Compression, Signal Processing, Probability, Statistics, Capstone Project in Data Compression, Capstone Project in Computers and Networks,

Certifications & Awards

Mitacs Research Fellowship - Mitacs Canada

Apr 2019

Chairman of IEEE CIS Outstanding Chapter of The Year - IEEE CIS

Jan 2021

Languages

English (Native or bilingual proficiency)

Portuguese (Native or bilingual proficiency)

Spanish (Professional working proficiency)