LUCAS SOUZA

Data Scientist | PhD in Physics



Solid background in math/phys/code coupled to my analytical profile, naturally led me to become a Data Scientist. Focused on understand the business/research challenges in order to be able to find the suitable tools for solution an then work on process optimization by implementing machine/deep learning models to deliver value from data. Experience working in agile environment and ability to collaborate with a diverse range of co-workers.



(37) 991910369



lucas-data-science.github.io/



lucasfusj@gmail.com



lucas-data-science/



lucas-data-science

Skills —



Programming/Software/Toolbox

Python • Git • Linux • LEX
Data Science/ML: Pandas, GeoPandas, Scikit-Learn, Boosting (XG/LGBM), NN, Plotly

Deep Learning (Tensorflow) • Time series (LSTM, AlgoTrading) • Genetic Algorithms

PostgreSQL • C++ • Bash • HTML

Education

2013 - 2017 **Doctorate in Physics** Instituto Tecnológico de Aeronáutica, ITA, Brazil

2009 - 2011 Master's degree Univ. Federal de São João del-Rei, UFSJ, Brazil

2004 - 2008 **Physics Undergraduate** Univ. Federal de São João del-Rei, UFSJ, Brazil

Data Science Experience

Sep 2021 - Data Scientist (Specialist from Oct 2022) Te present

Tenda Construtora, Brazil

- Data science techniques to drive better business decisions.
- Among my day-to-day I use: Python, GitLab, Pandas, Scikit-Learn, XGBoost/LightGBM, Neural Networks, Plotly, Optuna, etc.
- · Optimization with Genetic Algorithm.

Research Experience

Oct 2019 - **Postdoc researcher** Feb 2020 Instituto Tecnológico de Aeronáutica, ITA, Brazil

• Investigation on short-range correlations in nuclear matter of neutron stars taking high programming to calculate equation of state.

Jul 2017 -Oct 2019 Postdoc researcher

Universidade de São Paulo, USP, Brazil

 Theoretical study on nuclear reactions of neutron-rich nuclei by computing two- and three-body virtual states within nonrelativistic EFT formalism.

Extra Training (notes and scripts→ Github)

2022 Statics for Data Science and Machine Learning

(Portuguese) 20h, in progress

IA Expert Academy, Udemy

2022 TensorFlow: Machine Learning and Deep Learning with Python

(Portuguese) 19h IA Expert Academy

2022 Genetic Algorithm in Python (Portuguese) 4,5h IA Expert Academy

The Complete SQL Bootcamp 2022:

Go from Zero to Hero (English) 9h

Udemy

2021 Machine Learning and Data Science with

Python from A to Z (Portuguese) 42h

IA Expert Academy, Udemy

2017 School on few-body physics (English) 60h MPIPKS, Dresden, Germany

Teaching Experience (2/5 → CV Lattes)

Feb 2019 Professor, 30h

Universidade de Taubaté, Unitau, Brazil

Oct 2019

• Professor of Physics and Mathematics and Distance Learning Tutor.

Apr 2018 Jan 2019 **Temporary Professor, 40h**

Universidade Federal de Lavras, UFLA, Brazil

Physics professor for various undergraduate courses.

Publications (2/14 → Google Scholar)

- Sergio Pilling, Mauricio T. Pazzianotto, Lucas A. Souza, The Astrophysical Journal, 921, 116(2021)
- Lucas A. Souza, Emanuel V. Chimanski and Brett V. Carlson, Phys. Rev. C, 104, 034623(2021)