Artur Back de Luca

website | github | linkedIn | e-mail

EDUCATION

UNIVERSITY OF WATERLOO | MMath in Computer Science
09.2022 - Present | Waterloo, Canada

UNIVERSITY OF ROME - LA SAPIENZA | M.Sc. in Artificial Intelligence and Robotics
09.2019 - 05.2022 | Rome, Italy

FEDERAL UNIVERSITY OF SANTA CATARINA - UFSC | B.Sc. in Mechanical Engineering
08.2013 - 02.2019 | Florianopolis, Brazil - Overall course ranking: 92nd percentile

RWTH AACHEN UNIVERSITY | Exchange program
04.2017 - 01.2018 | Aachen, Germany

EXPERIENCE

HUAWEI | Student Researcher
02.2022 - 01.2023 | Toronto, Canada
Hosted by Guojun Zhang and Yingxue Zhang

MICROMED / CERTI FOUNDATION | Research Consultant
02.2021 - 01.2021 | Remote

NEO EMPRESARIAL | Engineering Intern
05.2015 - 08.2018 | Florianopolis, Brazil

CERTI FOUNDATION | Summer Intern
01.2018 - 03.2018 | Florianopolis, Brazil

FRAUNHOFER INSTITUTE FOR PRODUCTION TECHNOLOGY | Student Researcher
04.2017 - 01.2018 | Aachen, Germany

WHIRLPOOL S.A. – EMBRACO | Summer Intern
02.2016 - 03.2016 | Joinville, Brazil

NUMERICAL SIMULATION LAB. IN FLUID MECHANICS AND HEAT TRANSFER | Student Researcher
02.2015 - 05.2015 | Florianopolis, Brazil

PUBLICATIONS

1. Back de Luca, A., Zhang, G., Chen, X., & Yu, Y. (2022). Mitigating Data Heterogeneity in Federated Learning with Data Augmentation. arXiv:2206.09979.

AWARDS

M-IMAE | Mathematics International Master's Award of Excellence Scholarship
2022

LANGUAGES

PROGRAMMING
Python • Matlab • JavaScript

SPOKEN & WRITTEN
Native or Fluent: Portuguese, English
Intermediate: German, Italian

PERSONAL PROJECTS

Landscapeviz: a python package to visualize the loss landscape of neural networks using TensorFlow
PSOpt: a python package for combinatorial optimization using particle swarms
Normalized nets: analysis of the work Complexity Control by Gradient Descent in Deep Networks by Poggio et al. (2020)

For a more thorough portfolio, please refer to my website