Bruno Demattos Nogueira

CONTACT
INFORMATION

Belo Horizonte, Minas Gerais, Brazil
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EDUCATION

MSc Computer Science, Federal University of Minas Gerais (UFMG)   October 2021 – present
- GPA – 4.83 / 5
- Advised by Prof. Doc. Mário Sérgio Alvim.
- Research on quantitative information flow focusing on privacy and fairness.
- Teaching assistant in an undergraduate class on Operations Research.

BSc Computer Science, Federal University of Minas Gerais (UFMG)   March 2017 – August 2021
- GPA – 4.87 / 5
- Classes in Algorithms, Linear Algebra, Statistics, Optimization, Information Theory, Heuristics.

EXPERIENCE

Research visit, National Institute for Research in Digital Science and Technology - Inria   September 2023
- Work in the relationship of privacy and fairness in machine learning under the supervision of Prof. Doc. Catuscia Palamidessi.

Research internship, Aalto University   June 2023 – August 2023
- Work in differential privacy in temporal graph networks under the supervision of Prof. Doc. Vikas Garg.

Research assistantship, Federal University of Minas Gerais   April 2022 – March 2023
- Implementing proof compressors in Satisfability Modulo Theories solvers. Work funded by Amazon. Under the supervision of Prof. Doc. Haniel Barbosa.

Research internship, Swiss Federal Institute of Technology in Lausanne (EPFL)   July 2022 – October 2022
- Work in designing distributed machine learning algorithms focused on privacy under the supervision of Prof. Doc. Anne-Marie Kermarrec.

Teaching assistantship, Samsung   December 2021 – February 2022
- Teaching assistant on a class in Algorithms and Data Structures offered by UFMG.

Internship, Goldman Sachs   May 2021 – August 2021
- Strategist: automation of pipelines, creation of periodic reports, maintenance of general infrastructure.

Undergraduate research assistantship, Federal University of Minas Gerais   August 2017 – December 2020
- Research in Sports Analytics and Computer Vision.
  May 2020 – December 2020
- Research in Optimization and Spectral Graph Theory under the supervision of Prof. Doc. Gabriel Coutinho with a published paper.
  January 2019 – December 2019
- Research in Complex Networks under the supervision of Prof. Doc. Fabricio Murai with published papers and collaboration with American company GranData.
  August 2017 – December 2018

Internship, Big Data   January 2020 – March 2020
- Data Science: designing web crawlers, working with databases and machine learning in Python.

Teaching assistantship, Colégio Santo Antônio   April 2017 – December 2017
- Maths Teaching Assistant for middle schoolers.

AWARDS

- Competitor at the ICPC First Phase in Brazil   2017, 2018, 2019, 2020
- Silver medal at the Minas Gerais Coding Competition   May 2018, 2019
- Runner-up at the Microsoft Coding Competition at UFMG   March 2018
- Bronze medal at Belo Horizonte Programming Cup   September 2017
- Bronze medal at the Minas Gerais Mathematics Olympiad   November 2016
- Competitor at the Harvard-MIT Mathematics Tournament   November 2016

PUBLICATIONS

- "On the duality of privacy and fairness"
  2023 International Conference on AI and the Digital Economy   June 2023

- "Optimization of eigenvalue bounds for the independence and chromatic number of graph powers"
  Discrete Mathematics, Volume 345, Issue 3   November 2021
- "Estimation Errors in Network A/B Testing Due to Sample Variance and Model Misspecification"
  2018 IEEE/WIC/ACM International Conference on Web Intelligence (WI)   December 2018
- "Análise de Algoritmos de Clusterização para Experimentos Randomizados em Redes Sociais de Larga Escala"
  Analysis of clustering algorithms for randomized experiments on large social networks
  XVII Workshop em Desempenho de Sistemas Computacionais e de Comunicação   July 2018

EXTRA
EXPERIENCE

Volunteer at LAGOS   June 2019
Latin & American Algorithms, Graphs and Optimization Symposium
Universidade de São Paulo   October 2018
Spring course in competitive programming - 40 hours
Centro Federal de Educação Tecnológica - MG   January 2018
Summer course in competitive programming - 40 hours