

# BRENO MATOS

M.Sc. Student in Computer Science

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in brenomatos

Google Scholar

## EDUCATION

Master's Degree in Computer Science (Grade Average: 97/100)

UFMG, Federal University of Minas Gerais

Present

Belo Horizonte, Brazil

- Graduate Program in Computer Science of the UFMG is one of Brazil's oldest and most well-established in Computer Science in the country: [ppgcc.dcc.ufmg.br](http://ppgcc.dcc.ufmg.br)
- Research Areas: Natural Language Processing, Computational Social Science, Misinformation.
- Advisors: Professor Rodrygo L.T. Santos, Ph.D., Professor Fabrício Benevenuto, Ph.D.

Bachelor's Degree in Computer Science (Grade Average: 81/100)

UFMG, Federal University of Minas Gerais

Mar/2021

Belo Horizonte, Brazil

- Comprehensive Computer Science coursework. Includes, but is not limited to, Algorithm Design, Machine Learning, Natural Language Processing, Quantum Computing, Compilers, Data Science, and Computer Networks. Acquired both research and software development experience.
- Acquired both research and software development experience throughout all Bachelor's duration. Explored multiple research topics, including social computing, misinformation, information retrieval, and AI Fairness.
- Developed software solutions alongside Brazilian governmental agencies.

## EMPLOYMENT HISTORY

Researcher

Data Commons Brazil (Google and UFMG)

Sep 2023 – Present

Belo Horizonte, Brazil

- Project funded by Google to expand Data Commons to include Brazilian data. Data Commons is an initiative by Google to bridge the gap between publicly available data and its practical usability to address major challenges like climate change and health epidemics. Supervised by Fabrício Benevenuto, Ph.D..

Summer@EPFL Research Fellow

Swiss Federal Institute of Technology in Lausanne (EPFL)

Jul 2022 – Sep 2022

Lausanne, Switzerland

- Worked on developing a framework to audit online recommendation systems and conducting experiments with bots to account for personalization. Supervised by Prof. Robert West, Ph.D. and Manoel Horta Ribeiro

Head Teaching Assistant

Computer Science Department, UFMG

Mar 2022 – Jul 2022

Belo Horizonte, Brazil

- Responsible for overseeing 90+ students' semester projects and weekly activities for the Introduction to Data Science course at UFMG. Supervised by Prof. Flávio Figueiredo, Ph.D.

M.Sc. Researcher: Online Misinformation, Natural Language Processing, Radicalization

Computer Science Department, UFMG

2021 – Present

Belo Horizonte, Brazil

- Fellowship | M.Sc. Scholarship funded by the Public Ministry of Minas Gerais
- Researching misinformation, hate speech, online radicalization, and content moderation. **Current project: misinformation detection in videos via audio transcripts using state-of-the-art large language models.**
- Advisors: Professor Rodrygo L.T. Santos, Ph.D., Professor Fabrício Benevenuto, Ph.D.

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## Undergraduate Research Assistant: Information Retrieval

### Computer Science Department, UFMG

📅 Oct 2020 – Mar 2021

📍 Belo Horizonte, Brazil

- Fellowship | Scientific Initiation on Academic Research: Information Retrieval
- Scholarship funded by the Brazilian Institute of Geography and Statistics (IBGE),
- Developed an application to aid IBGE's analysts in their duties, such as calculating inflation based on products available online.
- Advisor: Professor Rodrygo L.T. Santos, Ph.D.

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## Undergraduate Research Assistant: WhatsApp/Telegram monitoring and Fake News detection

### Computer Science Department, UFMG

📅 Jan 2020 – Jan 2021

📍 Belo Horizonte, Brazil

- Fellowship | Scientific Initiation on Academic Research: Online Misinformation
- Scholarship funded by Public Ministry of Minas Gerais
- Developed monitoring applications for social media (WhatsApp, Telegram, and Instagram). Said applications were used for research purposes.
- Sentiment analysis for comparative sentences in Portuguese.
- Advisor: Professor Fabrício Benevenuto, Ph.D.

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## Undergraduate Research Assistant: Political Analysis using Complex Networks

### Computer Science Department, UFMG

📅 Oct 2017 – Dec 2019

📍 Belo Horizonte, Brazil

- Fellowship (18 months) | Scientific Initiation on Academic Research
- Performed data analysis using complex networks, including state-of-the-art network backbone extraction techniques. Helped develop a method to analyze governance using voting session data from the US House of Representatives.
- Worked on an international project with researchers from Politecnico di Torino regarding Instagram data monitoring before and after the Italian and Brazilian elections.
- Advisor: Professor Jussara M. Almeida, Ph.D.

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## PROGRAMMING SKILLS

Python

C/C++

JavaScript

Django

ReactJs

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## LANGUAGES

English

Portuguese

French (Beginner)

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## SCIENTIFIC PUBLICATIONS

- Breno Matos, Rennan Lima, Jussara M. Almeida, Rodrygo L.T. Santos, & Marcos Gonçalves - "On the Presence of Abusive Language in Mis/Disinformation", The 13th International Conference on Social Informatics. SocInfo '22
- Carlos Henrique Gomes Ferreira, Breno Matos & Jussara M. Almeida - "Analyzing Dynamic Ideological Communities in Congressional Voting Networks". Lecture Notes in Computer Science. 1ed.: Springer International Publishing, 2018, v. , p. 257-273.
- Carlos Henrique Gomes Ferreira, Fabrício Murai Ferreira, Breno Matos, and Jussara Marques de Almeida. "Modeling Dynamic Ideological Behavior in Political Networks". The Journal of Web Science 1 (2019)
- Daniel Kansaon, Michele A. Brandão, Julio C.S. Reis, Matheus Barbosa, Breno Matos, Fabrício Benevenuto - "Mining Portuguese Comparative Sentences in Online Reviews". XXVI Brazilian Symposium on Multimedia and the Web (2020)
- Breno Matos, Fabrício Benevenuto, Ana P.C. Da Silva - "A Nudez como Estereótipo de Beleza através das Lentes do Instagram". X Brazilian Workshop on Social Network Analysis and Mining, 163-168 (2021)
- Breno Matos, Carlos H. G. Ferreira, Jussara M. Almeida - "Analisando a governabilidade presidencial a partir de padrões de homofilia na Câmara dos Deputados: Estudos de Casos no Brasil e nos EUA". In: CSBC 2018 - VII BraSNAM, 2018, Natal. 7° Brazilian Workshop on Social Network Analysis and Mining (BraSNAM 2018), 2018. v. 7.

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## AWARDS AND RECOGNITIONS

Best Short Paper Winner

X Brazilian Workshop on Social Network Analysis and Mining, BraSNAM

📅 2021

📍 Virtual Edition

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Best Full Paper Nominee

Social Informatics: 10th International Conference

📅 2018

📍 Saint Petersburg

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