Nathan Schneider Gavenski

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Education

King's College London (KCL), United Kingdom
    Ph.D., Computer Science, 2022 to 2026 (expec.)
Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS), Brazil
    M.S., Computer Science, 2021
    B.S., Information Systems, 2018

Academic Experience

Data Science: Deep Learning II   2021 - 2024
    Visiting Lecturer at PUCRS Online, Porto Alegre, Brazil

Teaching Experience

Elementary Logic With Applications   Spring 2023
    Teaching Assistant for Dr. Odinaldo Rodrigues and Dr. Christopher Hampson, at King's College London
Logic and Knowledge Representation   Spring 2023
    Teaching Assistant for Dr. Odinaldo Rodrigues and Dr. Christopher Hampson, at King's College London
Optimisation Methods   2022-2023
    Teaching Assistant for Prof. Tomasz Radzik and Dr. Yali Du, at King's College London
Artificial Intelligence Fundamentals   Summer 2020
    Teaching Assistant for Prof. Rodrigo Barros and Prof. Felipe Meneguzzi, at PUCRS
Applied Artificial Intelligence   Summer 2020
    Teaching Assistant for Prof. Rodrigo Barros and Prof. Felipe Meneguzzi, at PUCRS
Business Intelligence   Spring 2020
    Teaching Assistant for Prof. Rodrigo Barros, at PUCRS

Distinction

Awarded for Inclusion Research Award, Google Research	2022
Graduated with summa cum laude, MSc (PUCRS),	2021

Academic Service

Journal Reviewer

IEEE Transactions on Neural Networks and Learning Systems (TNNLS)

Ad Hoc Reviewer

The International Joint Conference on Neural Networks (IJCNN)	2023 - 2021
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)	2023 - 2022
The British Machine Vision Conference (BMVC)	2023 - 2022
International Joint Conference On Artificial Intelligence (IJCAI)	2023 - 2024
IEEE Conference on Artificial Intelligence (IEEE CAI)	2023

Publication

Dissertation

1. **Self-supervised Imitation Learning from Observation**. Gavenski, N. and Barros, R. C.. Pontifícia Universidade Católica do Rio Grande do Sul (PUCRS). URL: `http://tede2.pucrs.br/tede2/handle/tede/9778`

Conference Articles

2. **Imitation Learning Datasets: A Toolkit For Creating Datasets, Training Agents and Benchmarking**. Nathan Gavenski, Michael Luck & Odinaldo Rodrigues. In: Proceedings of 23rd International Conference on Autonomous Agents and Multi-Agent Systems, AAMAS 2024.

3. **Self-Supervised Adversarial Imitation Learning**. Juarez Monteiro, Nathan Gavenski, Felipe Meneguzzi, & Rodrigo C. Barros. In: Proceedings of the 2023 International Joint Conference on Neural Networks, IJCNN 2023, pp. 1-8, IEEE Computer Society. DOI: `https://doi.org/10.1109/IJCNN54540.2023.10191197`

4. **How Resilient Are Imitation Learning Methods to Sub-optimal Experts?**. Nathan Gavenski, Juarez Monteiro, Adilson Medronha, & Rodrigo C. Barros. In: Proceedings of 11th Brazilian Conference, BRACIS 2022, pp. 449-463, Springer International Publishing. DOI: `https://doi.org/10.1007/978-3-031-21689-3_32`

5. **Efficient counterfactual debiasing for visual question answering**. Camila Kolling, Martin More, Nathan Gavenski, Eduardo Pooch, Otávio Parraga, & Rodrigo C. Barros. In: Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision, WACV 2022, pp. 3001-3010, IEEE Computer Society. DOI: `https://doi.org/10.1109/WACV51458.2022.00263`

6. **Object-based goal recognition using real-world data**. Rger Granada, Juarez Monteiro, Nathan Gavenski, & Felipe Meneguzzi. In: Proceedings of the 19th Mexican International Conference on Artificial Intelligence, MICAI

2020, pp. 325-337, Springer International Publishing. DOI: `https://doi.org/10.1007/978-3-030-60884-2_24`

7. **Imitating Unknown Policies via Exploration**. Nathan Gavenski, Juarez Monteiro, Roger Granada, Felipe Meneguzzi, & Rodrigo C. Barros. In: Proceedings of the 2020 British Machine Vision Virtual Conference, BMVC 2020, pp. 1–8, BMVA. URL: `https://www.bmvc2020-conference.com/assets/papers/0774.pdf`

8. **Augmented Behavioral Cloning from Observation**. Juarez Monteiro, Nathan Gavenski, Roger Granada, Felipe Meneguzzi, & Rodrigo C. Barros. In: Proceedings of the 2020 International Conference on Neural Networks, IJCNN 2020, pp. 1–8. IEEE Computer Society. DOI: `https://doi.org/10.1109/IJCNN48605.2020.9207672`

9. **Attention-based 3D Object Reconstruction from a Single Image**. Andrey Salvi, Nathan Gavenski, Eeduardo Pooch, Felipe Tasoniero & Rodrigo C. Barros. In: Proceedings of the 2020 International Joint Conference on Neural Networks, IJCNN 2020, pp. 1-8. IEEE Computer Society. DOI: `https://doi.org/10.1109/IJCNN48605.2020.9206776`

Journal Articles

10. **Debiasing methods for fairer neural models in vision and language research: A survey**. Otávio Parraga, Martin More, Christian Oliveira, Nathan Gavenski, Lucas Kupssinskü, Adilson Medronha, Luis Moura Gabriel Simões, & Rodrigo C. Barros ACM Computing Surveys, Accepted on December 2023. DOI: `https://doi.org/10.1145/3637549`

11. **Artificial intelligence to predict the risk of mechanical ventilation in cases of severe COVID-19**. Mariana F. de Godoy, José M. Chatkin, Rosana Rodrigues, Gabriele C. Forte, Edson Marchiori, Nathan Gavenski, Rodrigo C. Barros, & Bruno Hochhegger. Radiologia Brasileira, RB 2022, volume 56, pp. 81-85. DOI: `https://doi.org/10.1590/0100-3984.2022.0049`

Industrial Experience

Teia Labs	2021 - 2022
Web Developer, Porto Alegre, Brazil	
ADP Brazil Labs	2018 - 2019
Software Developer II, Porto Alegre, Brazil	
IBM	2014 - 2018
QA Test Analyst, Porto Alegre, Brazil	
Renner	2013 - 2013
Intern, Porto Alegre, Brazil	
Dell	2012 - 2013
Intern,, Porto Alegre, Brazil	

Language

Native Portuguese (Brazilian)
Advanced English (Academic IELTS Overall Score: 7.5)

Intermediate German (Deutsches Sprachdiplom Score: A2)
Elementary Spanish