Gabriel Paludo Licks

3rd-year Ph.D. student

Education

2020/2–current **Ph.D. in Engineering in Computer Science**, *Sapienza University of Rome*, Italy.

2018/2–2020/2 **M.Sc. in Computer Science**, *PUCRS*, Porto Alegre, Brazil.

2014/1–2018/2 **B.Sc. in Computer Science**, *UPF*, Passo Fundo, Brazil.

Ph.D. thesis *(expected graduation 2024)*

Title *Monte-Carlo planning with state merging for non-Markov reinforcement learning*

Advisor Prof. Dr. Giuseppe De Giacomo

Description A learning algorithm that combines Monte-Carlo planning with state merging techniques to build a Markov model of an underlying non-Markov decision process that can be solved by traditional Markov reinforcement learning agents.

M.Sc. thesis *(with honours)*

Title *Automated database indexing using model-free reinforcement learning*

Advisor Prof. Dr. Felipe Meneguzzi

Description Learning the value of indexes in a database and policies that adjust the index configuration to maintain optimal performance in dynamic workloads.

Academic experience

2024/1–2024/3 **Academic internship**, *Ben Gurion University of the Negev*, Beer Sheva, Israel.
Period abroad with Dr. Ronen Brafman during the Ph.D. programme.

2019/1–2020/2 **Fellowship project with SAP (during M.Sc.)**, *PUCRS/SAP*, Porto Alegre, Brazil.
Automated Planning for Optimizing the Deployment of Data Pipelines.

2018/2 **Fellowship project with SAP (during M.Sc.)**, *PUCRS/SAP*, Porto Alegre, Brazil.
Automated Database Indexing for Dynamic Workloads using Reinforcement Learning.

2019/2 **AI teaching assistant (during M.Sc.)**, *PUCRS*, Porto Alegre, Brazil.
Artificial Intelligence (Undergraduate course), Prof. Dr. Felipe Meneguzzi.

2016/2–2017/1 **B.Sc. exchange programme in Computer Science**, *UHasselt*, Hasselt, Belgium.
Taking courses as an exchange student via university bilateral agreement.

Publications

Doctoral Consortiums

2023 *22nd International Conference of the Italian Association for Artificial Intelligence (AIxIA 2023)*

2023 *26th European Conference on Artificial Intelligence (ECAI 2023)*

Conference papers

2022 **Markov Abstractions for PAC Reinforcement Learning in Non-Markov Decision Processes**. Alessandro Ronca, Gabriel Paludo Licks, Giuseppe De Giacomo. *The International Joint Conference on Artificial Intelligence (IJCAI 2022)*

2020 **Using Self-Attention LSTMs to Enhance Observations in Goal Recognition**. Leonardo Amado, Gabriel Paludo Licks, Matheus Marcon, Ramon Fraga Pereira, and Felipe Meneguzzi. *The International Joint Conference on Neural Networks (IJCNN 2020)*

Workshops

2020 **Automated Database Indexing Using Model-Free Reinforcement Learning**. Gabriel Paludo Licks and Felipe Meneguzzi. *The ICAPS Scheduling and Planning Applications woRKshop (ICAPS SPARK 2020)*

Demos

2020 **LatRec+: Learning-based Goal Recognition in Latent Space**. Leonardo Rosa Amado, João Paulo Aires, Ramon Fraga Pereira, Maurício Magnaguagno, Roger Granada, Gabriel Paludo Licks, Matheus Marcon, and Felipe Meneguzzi. *The AAAI Workshop on Plan, Activity, and Intent Recognition (AAAI PAIR 2020)*

2019 **LatRec: Recognizing Goals in Latent Space**. Leonardo Rosa Amado, Ramon Fraga Pereira, João Paulo Aires, Maurício Magnaguagno, Roger Granada, Gabriel Paludo Licks, and Felipe Meneguzzi. *The 29th International Conference on Planning and Scheduling (ICAPS 2019)*

Journal papers

2019 **SmartIX: A Database Indexing Agent Based on Reinforcement Learning**. Gabriel Paludo Licks, Julia Colleoni Couto, Priscilla de Fátima Miehe, Renata de Paris, Duncan Dubugras Ruiz, and Felipe Meneguzzi. *The International Journal of Research on Intelligent Systems for Real Life Complex Problems (Applied Intelligence – APIN)*

Conference paper reviewing experience

2024 Main track at IJCAI 2024.

2024 Main track at ICAPS 2024.

2023 Main track at AISTATS 2024.

2023 Main track at AAMAS 2024.

2023 GenPlan workshop at NeurIPS 2023.

2023 Main track at ECAI 2023.

2023 Main track at ICAPS 2023.

2023 Main track at AAMAS 2023.

Quick links

DBLP `https://dblp.org/pid/271/4713.html`

Google Scholar `https://scholar.google.com/citations?user=zUjLlV0AAAAJ`