

MIGUEL SUAU

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EDUCATION

Doctor of Philosophy in Artificial Intelligence

Sep. 2018 - May 2023

Delft University of Technology

- Supervised by Frans Oliehoek and Matthijs Spaan.
- Thesis: Leveraging Factored State Representations for Enhanced Efficiency in Reinforcement Learning.

Master of Science in Mathematical Modelling and Computation

Sep. 2016 - Jul. 2018

Technical University of Denmark

- Focus area: Machine learning and Scientific computing.
- Master's Thesis with Lars Kai (CogSys DTU). Reinforcement learning and multi-agent systems using Unity ML-Agents.
- GPA: 11.08/12.00.

Bachelor's degree in Energy Engineering

Sep. 2010 - Feb. 2015

Technical University of Madrid

School of Industrial Engineering

- Focus area: Energy technologies.
- Bachelor's Thesis with Carlos Veganzones (Electrical Systems ETSII): Design and construction of a small-scale wind turbine.
- Cum Laude.

SELECTED PUBLICATIONS

M. Suau, M. T. J. Spaan, F. A. Oliehoek. [Bad Habits: Policy Confounding and Out-of-Trajectory Generalization in RL](#). RLC 2024.

M. Suau. [Leveraging Factored State Representations for Enhanced Efficiency in Reinforcement Learning](#). Ph.D. Thesis 2024.

M. Suau, J. He, M. M. Çelikok, M. T. J. Spaan, F. A. Oliehoek. [Distributed Influence-Augmented Local Simulators for Parallel MARL in Large Networked Systems](#). NeurIPS 2022.

M. Suau, J. He, M. T. J. Spaan, F. A. Oliehoek. [Influence-Augmented Local Simulators: A Scalable Solution for Fast Deep RL in Large Networked Systems](#). ICML 2022.

J. He, M. Suau, H. Baier, M. Kaisers, F. A. Oliehoek. [Online Planning in POMDPs with Self-Improving Simulators](#). IJCAI 2022.

M. Suau, J. He, M. T. J. Spaan, F. A. Oliehoek. [Speeding up Deep RL through Influence-augmented Local Simulators](#). AAMAS 2022.

M. Suau, J. He, E. Congeduti, J. He, R.A.N. Starre, A. Czechowski, F. A. Oliehoek. [Influence-aware Memory Architectures for Deep Reinforcement Learning in POMDPs](#). NCAA, Springer Journal, 2022.

M. Suau, A. Agapitos, D. Lynch, D. Farrell, M. Zhou, A. Milenovic. [Offline Contextual Bandits for Wireless Network Optimization](#) Offline RL workshop, NeurIPS 2021.

N. Albers, M. Suau, F.A. Oliehoek. [Using Bisimulation Metrics to Analyze and Evaluate Latent State Representations](#). BNAIC 2021.

J. He, M. Suau, F.A. Oliehoek. [Influence-augmented Online Planning for Complex Environments](#). NeurIPS 2020.

M. Suau, E. Congeduti, R.A.N. Starre, A. Czechowski, F.A. Oliehoek. [Influence-based Abstraction in Deep Reinforcement Learning](#). Workshop on Adaptive Learning Agents, AAMAS 2019.

INDUSTRY EXPERIENCE

Phaidra Oct. 2023 - Now
AI Research Scientist, Remote

- Modelling and optimization of industrial systems

JP Morgan AI Research Jun. 2022 - Dec. 2022
AI Research Associate Program, London, United Kingdom

- Learning Implicit Portfolio Optimizers in Hindsight.

Huawei Research May 2021 - Oct. 2021
PhD Research Intern, Dublin, Ireland (Remote)

- Offline Contextual Bandits for Wireless Network Optimization.

Unity Technologies Jul. 2017 - Aug. 2018
Business Intelligence Analyst, Copenhagen, Denmark

- Data mining, visualization, statistical analysis, and machine learning.

NTT Data Feb. 2016 - Jul. 2016
Solutions Assistant, Madrid, Spain

- Designed and tested software to prevent money laundering for financial institutions.

SAMPOL Ingenieria y Obras Summer periods 2013 and 2014
Technician in Energy Production, Palma de Mallorca, Spain

- Energy efficiency studies in co-generation plants, biomass, fuel, and gas.

TEACHING AND SUPERVISION

Lecturer

- CSE2530, Computational Intelligence, TU Delft, 2021-2022
- CSE2530, Computational Intelligence, TU Delft, 2020-2021
- CSE2530, Computational Intelligence, TU Delft, 2019-2020

Supervision

- Honours Project: Sven Holtrop, Lucas Crijns (2020)
- Master thesis: Nele Albers (2019)
- Bachelor's Thesis: Cian Jansen (2019)
- Master thesis: Deniz Hofmeister (2018)