

# Marcos Menon Jose

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<b>EDUCATION</b>	<b>University of Alberta (Edmonton, AB, Canada)</b> Thesis Based M.Sc. in Computing Science Advisor: prof. Marlos C. Machado	September 2023 - September 2025* *Expected graduation date
	<b>University of São Paulo (São Paulo, SP, Brazil)</b> M.Sc. in Electrical & Computer Engineering University of São Paulo is the leading university in Latin America <i>Programa de Bolsas Itaú</i> (PBI) Fellowship Thesis: A Deep Reinforcement Learning Question-Answering Agent for Complex Questions using Texts and Tables. Advisor: prof. Fabio Gagliardi Cozman	June 2021 - December 2023
	<b>University of São Paulo (São Paulo, SP, Brazil)</b> B.Sc. in Mechatronics Engineering	Jan. 2014 - Dec. 2019
	<b>Universitat Politècnica de Catalunya (Barcelona, Spain)</b> International Student Exchange Program	Aug. 2017 - July 2018

<b>PUBLICATIONS</b>	<b>Benchmarks for Pirá 2.0, a Reading Comprehension Dataset on the ocean, the Brazilian coast, and climate change</b> P. Pirozelli, <u>M. José</u> , I. Silveira, F. Nakasato, A. Brandão, A. Costa, F. Cozman Data Intelligence, 2024.	
	<b>Comparing Computational Architectures for Automated Journalism</b> Y. Sym, J. Campos, <u>M. José</u> , F. Cozman To appear in proceedings of the XIX National Meeting on Artificial and Computational Intelligence (ENIAC '22), 2022.	
	<b>The BLue Amazon Brain (BLAB): A Modular Architecture of Services about the Brazilian Maritime Territory</b> P. Pirozelli, A. Castro, A. Oliveira, A. Oliveira, F. Cação, I. Silveira, J. Campos, L. Motheo, L. Figueiredo, L. Pellicer, <u>M. José</u> , M. José, P. Ligabue, R. Grava, R. Tavares, B. Matos, Y. Sym, A. Costa, A. Brandao, D. Mauá, F. Cozman, S. Peres AI: Modeling Ocean and Climate Change Workshop @ International Joint Conference on Artificial Intelligence (IJCAI-ECAI), 2022.	
	<b>Integrating question answering and text-to-SQL in Portuguese</b> <u>M. José</u> , M. José, D. Mauá, F. Cozman 15th International Conference on Computational Processing of Portuguese (PROPOR '22), 2022.	
	<b>Interpretability of Attention Mechanisms in a Portuguese-Based Question Answering System about the Blue Amazon</b> S. Spindola, <u>M. José</u> , A. Oliveira, F. Cação, F. Cozman Proceedings of the XVIII National Meeting on Artificial and Computational Intelligence (ENIAC '21), 2021.	
	<b>Deepagê: answering questions in Portuguese about the Brazilian environment</b> F. Cação, <u>M. José</u> , A. Oliveira, S. Spindola, A. Costa, F. Cozman Brazilian Conference on Intelligent Systems (BRACIS '21), 2021.	
	<b>Pirá: A Bilingual Portuguese-English Dataset for Question-Answering about the Ocean</b> A. Paschoal, P. Pirozelli, V. Freire, K. Delgado, S. Peres, <u>M. José</u> , F. Nakasato, A. Oliveira, A. Brandão, A. Costa, F. Cozman Proceedings of the 30th ACM International Conference on Information & Knowledge Management (CIKM	

'21), 2021.

### **Reinforcement learning control of robot manipulator**

L. Cotrim, M. José, E. Cabral

Brazilian Journal of Applied Computing (RBCA), 2021.

## **TEACHING EXPERIENCE**

**Instituto Mauá de Tecnologia, São Paulo, SP**  
**Graduate Reinforcement Learning Course**

Mar. - May 2021 and Apr. - June 2022

- Created, developed, and taught a graduate Reinforcement Learning Course covering fundamental topics to algorithms with the latest neural function approximators.
- The course also had a practical focus, students were able to see and develop several different Deep Reinforcement Learning applications in python.

**C2D, São Paulo, SP**  
**Reinforcement Learning Course**

July 2022 - Aug. 2022

- Adaptation from the Reinforcement Learning Course mentioned above, but more application-focused.
- Course given to graduate students at the University of São Paulo and data scientists at Banco Itaú.

**Introductory classes for first-year engineering students**

Jan. - Feb. 2017 and Jan. - Feb. 2019

- Founded and organized the introductory classes project, which consists of extracurricular classes for low-income Engineering first-year students focused on providing the basic knowledge necessary to begin the course.
- Prepared and taught classes about algebra, calculus, and physics.

## **RESEARCH**

**Center for Artificial Intelligence (C4AI), University of São Paulo**

Aug 2020 - Present

- C4AI is a research center for advanced artificial intelligence in Brazil, sponsored by IBM and FAPESP.
- Developing Natural Language Processing applications in Portuguese and English by leveraging classical models and transformers neural networks.

## **WORKING EXPERIENCE**

**Itaú-Unibanco, São Paulo, SP**  
**Data Science Summer Internship**

April 2022 - June 2022

- Worked as a Data Scientist at *Itaú-Unibanco*, the largest private bank in Latin America, in their academic summer program.
- Creation of a computer vision algorithm for automatically extracting information from pictures of agricultural contracts.
- Project also covered the implementation on AWS EC2 cloud.

**Nu Invest/Easynvest, São Paulo, SP**  
**Data Engineer**

Jan 2020 - Aug 2020

- Worked as a Data Engineer at Nu Invest, one of the largest broker companies in Brazil
- Participated in the construction and implementation of the Databricks and Delta Lake infrastructure for the entire company data.
- Coding in python to optimize and construct ETL (Extract, Transform, and Load) processes by organizing and structuring the company's data from multiple sources.

## **CODING SKILLS**

**Python, PyTorch, Matlab, Web Scraping, C/C++, LaTeX**

Proficient

## **LANGUAGES**

**English**      Fluent  
**Portuguese**    Native  
**Spanish**        Intermediary