

NICHOLAS SCHARAN CYSNE

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WORK EXPERIENCE

QuantumBlack, AI by McKinsey | McKinsey & Company

📍 São Paulo, Brazil

Software Engineer – QuantumBlack Labs

📅 Feb 2023 – Today

- Led the research and development of Generative AI Copilot and Assistant tools for *replacement of* and *aid* to Customer Facing staff, effectively reducing operational cost by 18% in several clients and industries.
- Designed and implemented RL-based system for optimizing (oil & gas) offshore platforms design, optimizing platform's life expectancy by 2 times and decreasing overall cost of construction and maintenance by 23%.

Goldman Sachs

📍 São Paulo, Brazil

Software Engineer Intern – Asset Management Division

📅 Feb 2022 – Oct 2022

- Researched on LSTM-based algorithmic trading strategies, focused on enhancing fund's risk management.
- Designed and developed an LP optimizer to improve Americas and EU trading inventory management.

EDUCATION

Aeronautics Technological Institute

(Instituto Tecnológico de Aeronáutica | ITA)

📍 São Paulo, Brazil

Masters in Electronics Engineering and Computer Science

📅 Jan 2022 – Jan 2024

- **Thesis:** Sequential Learning Framework for Multi-Agent and Multi-Objective Deep Reinforcement Learning
- **Research:** Autonomous Systems; Multi-Agent Systems; Game Theory; Reinforcement Learning.

Bachelors in Electronics Engineering

📅 Jan 2018 – Dec 2022

- **Thesis:** Deep Reinforcement Learning for Multi-Agent Systems in Multicriteria Missions.
- **Research:** UAVs; Communication Systems; Autonomous Systems; Control Systems; Reinforcement Learning.

PUBLICATIONS

2023 European Control Conference (ECC)

📅 June 2023

An Incremental Approach for Multi-Agent Deep Reinforcement Learning for Multicriteria Missions.

- Proposed an incremental training framework for Multi-Agent and Multi-Objective Reinforcement Learning, focusing on the implementation of an ad hoc network of UAVs to efficiently execute Coverage Missions.

RESEARCH PROJECTS & ACHIEVEMENTS

Center of Excellence in Artificial Intelligence

📍 São Paulo, Brazil

Visiting Student – AI Researcher

📅 Feb 2023 – Apr 2023

- Investigated offline Reinforcement Learning techniques to build a Credit Score Recommender system, with a focus on discerning individuals with high or low credit risk based on their personal purchase history.

ITAndroids – ITA Robotics Lab

📍 São Paulo, Brazil

Collaborator – AI Researcher

📅 Mar 2018 – Dec 2020

- Implemented broadcast communication among AI agents, specifically autonomous robots participating in VSSS 5v5 soccer matches, fostering coordinated teamwork and strategic play.
- Awarded 1st place in Latin American Robotics VSSS Competition (2018, 2019 & 2020) with ITAndroids team.

LANGUAGES

Portuguese (Native), English (C1), German (B1)