



Leonardo Novicki Neto

Details

Address

Curitiba
Brazil

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Email

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Links

github.com/leoneto98

Skills

Python (Programming Language)



Dataset



Mathematical Skills



MATLAB



Quick Learner



Problem Solver



Data Analisys



ETL (Extraction, Transformation, and Loading)



Machine Learning



SQL



Computer Vision



Profile

Passionate about science and technology, I have always had a keen interest in mathematics and uncovering the truths hidden behind the numbers. Since I was a kid, I've loved figuring things out on my own, like fixing broken stuff and discovering the wonders of physics.

Employment History

Office assistant and IT technician, Santa Lúcia Materiais de Construção

Jan 2016 – Sep 2022

During my undergraduate studies, I worked at my family's company. I was responsible for all maintenance and installation of IT and electronic security equipment, as well as assisting with customer service.

Researcher, CARISSMA Institute of Automated Driving

Sep 2022 – Mar 2023

Development of the TWICE dataset was carried out under the supervision of Professor Werner Huber and Professor Eduardo Parente Ribeiro.

Education

Universidade Federal do Paraná (UFPR), Physics Degree

Aug 2016 – Oct 2021

Graduated with a mean grade of 82.17 (scale 0 to 100) and I never failed a class.

Universidade Federal do Paraná (UFPR), Master in Electrical Engineering

Apr 2022 – Dec 2023

TWICE Dataset: Digital Twin of Test Scenarios in a Controlled Environment

Relevant Coursework:

- Applied Artificial Intelligence
- Machine Learning
- Advanced Methods in Electronic Systems
- Signals and Systems
- Computer Vision

Technische Hochschule Ingolstadt (THI), Sandwich Master (Autonomous Driving)

Sep 2022 – Mar 2023

As part of my master's degree, I contributed to the creation of a dataset for autonomous vehicles. This public dataset incorporates information from radar, camera, LiDAR, and IMU sensors. The data was initially collected in a test track environment and later reproduced in a digital twin created within a laboratory setting.

Languages

Portuguese



English



Spanish



Hobbies

Swimming, football, books, cinema, music, and taking long walks.

My responsibilities encompassed processing, selecting, transforming, converting, annotating, and organizing the large volume of data obtained from researchers at the CARISSMA Institute of Automated Driving. The primary objective was to publish the data in a format that is both agnostic and accessible. As a part of my role, I also developed tools for opening the files, visualizing, and processing this data. To perform these tasks, Python was the main tool, along with MATLAB and the Robot Operating System (ROS).

With the dataset finished an analysis of the data was conducted using the YOLOP algorithm to estimate the simulation-to-reality gap between the real tests and their respective digital twins.

More information about the work is available at:

<https://twicedataset.github.io/site>

<https://arxiv.org/abs/2310.03895>

Internships

Research Assistant, Universidade Federal do Paraná

Aug 2019 – Aug 2021 Curitiba

CNPQ scholarship of scientific initiation. Developing materials for Electric Double Layer Capacitor with Prof. Dr. Cyro Ketzer Saul

References

Fabio Luis Reway

CARISSMA Institute of Automated Driving

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Courses

Machine Learning Specialization, Stanford/DeepLearning.AI

Feb 2024 – Mar 2024