Tutorials

Learn how to use Orion with tutorials. We encourage you to contribute by sharing your own tutorial.

Provable Multiple Linear Regression Solver: Forecasting AAVE's Lifetime Repayments

For this particular tutorial, we will build a Closed-Form Multiple Linear Regression algorithm and use it to forecast AAVE's (WETH Pool) future projected Lifetime Repayments as a practical example. Towards the second half-end of the tutorial, we will convert the model to Cairo enabling us to make the entire MLR system as well as the forecasts fully provable & verifiable.

December 21, 2023 - Bem Baraki

Verifiable Principal Components Analysis

The Principal Component Analysis (PCA) method is an unsupervised learning algorithm that aims to reduce the dimensionality of a dataset consisting of a large number of interrelated variables, while at the same time preserving as much of the variation present in the original dataset as possible.

December 12, 2023 - Dataonchain

Verifiable Support Vector Machine

This tutorial will guide you through implementing your first fully verifiable support vector machine model in Cairo using the Orion framework.

September 26, 2023 - 0xd3bs

Verifiable Linear Regression Model

This tutorial will guide you through implementing your first fully verifiable linear regression model in Cairo using the Orion framework. It covers replicating a basic linear regression model from Python to Cairo utilizing the Orion library.

August 16, 2023 - Bem Baraki

How to implement new operators in Orion?

Would you like to contribute? This is a step-by-step guide to show you how to implement new operators in Orion.

June 23, 2023 - Raphael Doukhan

Build Your First Neural Network in Cairo 1.0 Using Orion

In this tutorial, you will be guided on how to train your model using Quantized Aware Training, how to convert your pre-trained model to Cairo 1, and how to perform inference with Orion.

June 8, 2023 - Raphael Doukhan

Previous Spaces Next MNIST Classification with Orion

Last updated2 months ago