



Problem

Online Investment Advice

Cryptocurrency's boom in popularity caused a proliferation in the amount of unsubstantiated advice online pushing newcomers towards algorithmic trading.

Lack of Risk Assessment

Existing tools for evaluating investment strategies fail to account for the limited and heavily skewed nature of cryptocurrency data when evaluating risk.

Key Features

Synthetic Data

Generate varied market data with realistic properties using univariate statistical models.

Distributional Analysis

Examine trading performance across 100's of synthetic datasets to better understand the multitude of possible outcomes.

Portable

Display backtest results in an HTML report that can be opened in any browser.

Designed to Last

Ensure longevity with a modular architecture, unit tests, documentation, user guides, and automated development pipeline.

Future

Publicly Available

Published as a python package. Installable via `pip install coin-test`

Maintained

Adopted by Fidelity Open Source for continued development.

Team 4



Faculty Advisor 1

Professor Lynn Adrea Stein

Liaisons 3

Dimitry Bisikalo, Nikhil Murgai, Chuck Collins

Project Sponsor



Institution



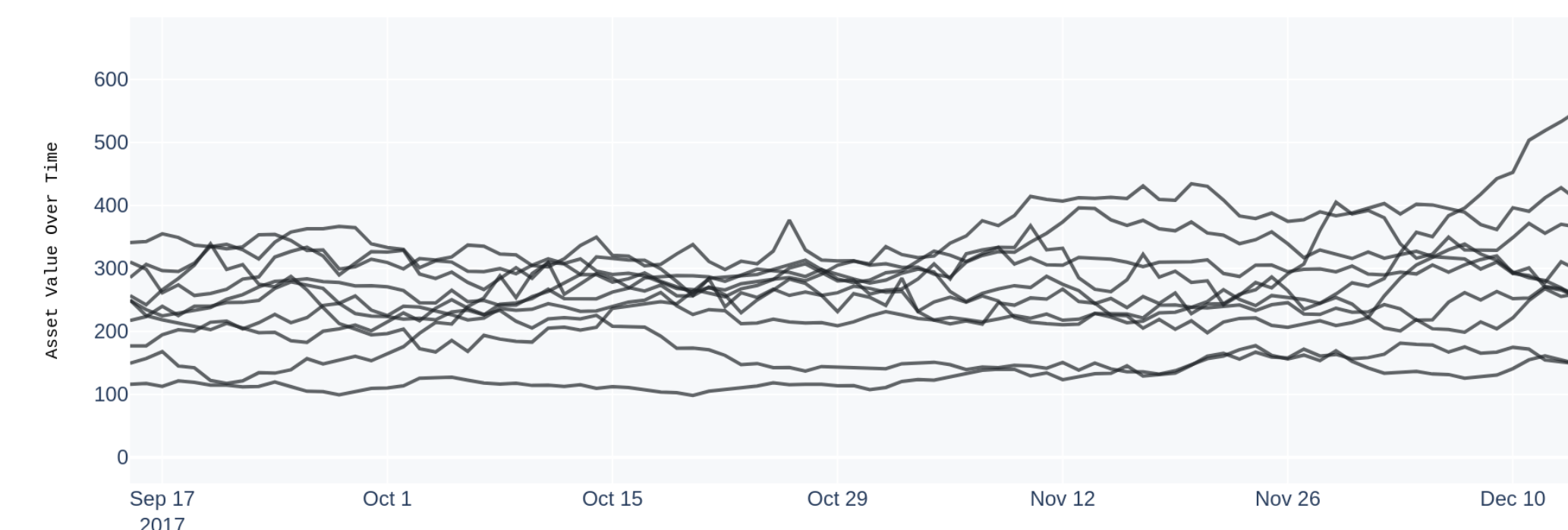
coin-test:

Open-Source Risk Evaluation for Cryptocurrency Investments

An open-source Python package that holistically evaluates the risk of algorithmic trading strategies using synthetic data and distributional analysis.

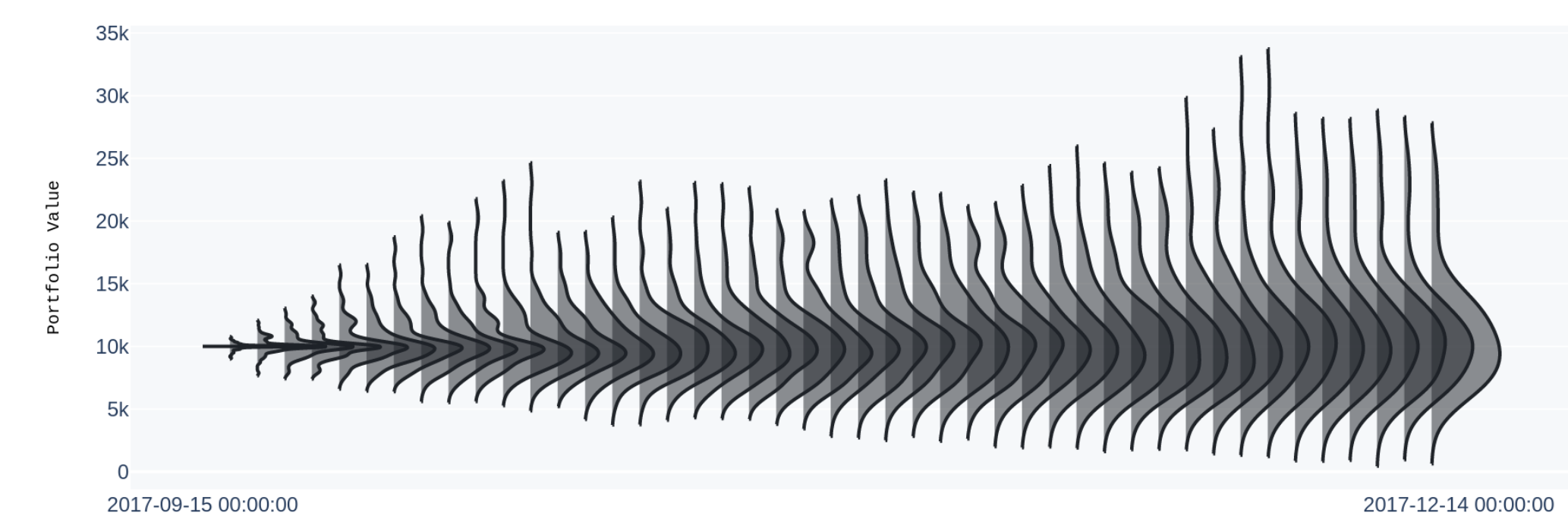


Synthetic Data



25 synthetic datasets generated from Ethereum price data.

Distributional Analysis



Distribution of strategy portfolio value at different times.