

## TROPFE: Next-gen MATPOWER Training Data Tool

**TROPFE is a sophisticated training data software developed to interface with MATPOWER OPF solver tools for efficient machine learning.**

TROPFE is a sophisticated training data software developed to interface with MATPOWER OPF solver tools for efficient machine learning. The software seamlessly restructures the data outputted by MATPOWER, optimizing it for machine learning applications. It accomplishes this by extracting desired values, placing them into a properly formatted array, and converting this array into a Python array for future use. To enrich the training data, CW-22-40 TROPFE leverages MATPOWER's capabilities to generate varying power flow scenarios. Furthermore, it incorporates a number of functions to connect bus and branch, run selected cases through the solver, and convert the final matrix into a Python array. This software would significantly benefit users aiming to train a machine learning algorithm using MATPOWER solvers, particularly those focusing on neural network machine learning.

### Category

Data Analytics and Machine Learning

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