News-like story: Adam Yankelevits, Aaron Drew, Eric Yehl, Arbaaz Shakir, Priyadarsini Subramanian, John Stuart

UC Berkeley Students Invent Algorithm to Predict Commodity Prices

Electricity prices have risen steadily in the last decade, by around 20% in the last 10 years for utility retail prices. Energy price prediction, a machine learning project developed by UC Berkeley students, gives policy makers, energy market analysts and investors in energy infrastructure projects the opportunity to predict electricity prices 5 to 10 years in the future with high confidence. This project is further backed by financial energy investor Antonio Vitti who has deep knowledge and experience in international banking, finance and technology start-up.

The team applied machine learning methods to 17 years of electricity data for California in order to identify the factors most responsible for variance in electricity prices. Additionally, they developed a feature selection algorithm which calibrates and identifies the key factors influencing the electricity prices. They invented a new algorithm, yet to be named, that they refer to as something between a “rolling window” and a “hopping lasso” that takes time series data and builts a unique model for each prediction in time based on past data, stringing them together. The team built this model around electricity pricing. However, this project has tremendous potential to be used for other prediction models (eg. stocks, commodities, infrastructure projects, etc), to serve as the backbone of long-term investments.