Demo Abstract: Solar-TK: A Solar Modeling and Forecasting Toolkit

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ABSTRACT

There has been significant prior work on solar performance modeling and forecasting that infers a site's current and future solar generation based on different factors including a site's location, time, weather, and physical attributes. Unfortunately, much of the prior work is not accessible to researchers, either because it has not been implemented and released as open-source, is too complex and time-consuming to re-implement, or requires access to proprietary data sources. To address the problem, we present Solar-TK, a data-driven toolkit for solar performance modeling and forecasting that is *simple*, *extendable*, and *publicly accessible*. Solar-TK's *simple* approach models and forecasts a site's solar output given only its location and a small amount of historical generation data. We plan to *publicly release* Solar-TK as open-source to enable research that requires realistic solar models and forecasts, and to serve as a baseline for comparing new solar modeling and forecasting techniques.

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