TrønderEnergi: Deep probabilistic time-series forecasting

Problem description

In 2020, TrønderEnergi will operate more than 200 wind turbines. State of the art ML algorithms give point predictions. They do not state how certain they are about the result. The task is to investigate machine learning methods that predict power production and provide an uncertainty estimation. A special focus will be given to evaluation.

Data

Wind turbine power production. We have more than five year of data for 50+ turbines.

Challenges

Get good probability distributions.

Thesis information

The thesis could be written by one or two students (both informatics and computer science students).