

Industrial Machine Learning

Cleaner, safer and more efficient industrial production

About us

Intelecy is a fast-growing technology company providing value to customers worldwide across a large number of industries.

The data science team uses statistics and machine learning to analyze production data from the manufacturing and processing industries. The goal is to prevent breakdowns, predict failures, improve production processes and provide deep insight into the operations of our customers.

The product translates customer problems to machine learning problems and currently relies on deep recurrent neural networks to detect relevant patterns.

About you

The ideal student wants to join our search for finding data transformations and models that work well on a wide range of relevant time series problems. We challenge you to improve our current methods. Performance is evaluated on hidden test data while also taking computational and time consumption into account.

We want you to be able to work independently and we rely on your creativity to challenge our current design choices. Starter code will be provided in Keras but you are free to use any machine learning framework.

The ideal candidate has prior experience with training neural networks and has a strong interest in deep learning research.

Possible project topics include:

- Do convolutional networks (e.g. WaveNet) outperform recurrent networks?
- Can the parameter optimization logic be improved (currently Adam with a fixed learning rate)?
- What is the best way to input time into our networks?
- Does importance sampling speed up training?
- Traditional time series models (e.g. SARIMAX)

Why Intelecy

The data science team at Intelecy consists of world class engineers and researchers with a strong interest in statistics and deep learning. We will share our extensive experience and provide guidance throughout the assignment.

The problems we are benchmarking on consist of real production cases that exhibit various patterns, making automated machine learning a very hard challenge. We like hard problems and we hope you do too!

