

## Stage voor de opleiding Master Informatica

Titel:

- GenAI Internship
- Energy Internship: imbalance and imbalance Price Forecasting
- Bio Internship
- Ethics Internship
- ...

Gegevens bedrijf:

Naam: ML6

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Adres waar de student zal werken:Esplanade Oscar Van De Voorde, 1 9000 Gent

Kort (min 90 uur) of lang (180 uur): **kort / lang**

### **Korte beschrijving van de opdracht:**

GenAI potential topics:

- Comparing small Vs Large LLMs
- Building a Knowledge Graph using LLMs for Biomedical Research

Energy:

This internship will focus on developing and evaluating advanced models for predicting both the magnitude of imbalance and the resulting imbalance prices. The project will involve:

- **Data Collection and Preprocessing:** Working with large datasets of historical market data, including generation, consumption, weather data, and imbalance prices. This will involve data cleaning, transformation, and feature engineering.
- **Model Development:** Exploring and implementing various machine learning and statistical models for imbalance and imbalance price prediction. This could include gradient-boosting methods, neural networks, and time series foundation models.
- **Model Evaluation and Validation:** Rigorous testing and validation of the developed models using appropriate metrics and techniques.
- **Analysis and Interpretation:** Analyzing the results, identifying key drivers of imbalance and imbalance prices, and drawing meaningful conclusions.

- **Collaborate:** Collaborate with experienced ML6 team members to define project scope, objectives, and approaches.

Bio:

In this internship we want to leverage the developments in GenAI as well as in the lifescience sphere to build a pipeline to generate new sequences that more or less make sense, from a biological point of view.

**Technologieën die aan bod zullen komen:**

- Tensorflow / Pytorch
- Python
- Bio:
  - Nextflow, LLM, ESM, Alphafold, multi agent setup,...