# Stage voor de opleiding Master Informatica

## Titel: Automated Metadata Discovery

## Gegevens bedrijf:

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## Kort (min 90 uur) of lang (180 uur): **lang**

## Korte beschrijving van de opdracht:

Problem description: Agidens implements industrial automation solutions for production companies in various industries. These systems often have 10,000s of configuration parameters such as alarm thresholds, control settings, etc. In complex organizations with legacy code bases it is very difficult to identify all potential settings as the automation systems do not have clear metadata differentiating the settings from sensor values. This makes it difficult to monitor these parameters, causing risks on the continuity and security of the installation

Proposed solution: Building an AI system that can infer metadata of each value (“tag”), such as the type (e.g., parameter, sensor value) or the context (e.g., “temperature” vs “analogue range” vs ...), using the historical values and variation of values, various naming conventions, type of operations in the code, etc.

## Technologieën die aan bod zullen komen:

We are seeking candidates who are eager to contribute to pioneering AI solutions. Ideal applicants bring the following skills and experiences:

- Currently enrolled in the 3rd year of a bachelor’s program or in a master's degree in computer science, physics, mathematics, or a related field
- Strong proficiency in Python
- Excellent verbal and written communication skills in English
- Experience with deep learning libraries such a PyTorch is a plus
- Familiarity with cloud deployment is a plus
- A basic understanding of industrial processes is a plus