

ANNOUNCEMENT 13.10.2020

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## MASTER THESIS: **DECODING GREENWASHING WITH ARTIFICIAL INTELLIGENCE**

Ecotrek (<https://ecotrek.tech/>) is a Berliner start-up that provides an unique platform for quickly finding sustainable suppliers and business partners all over the globe. One of the ecotrek's goals is to help its users to decode company's claims about having a positive impact on the environment. In this sense, the term *greenwashing* is employed when a company states a false claim about whether and how their products are environmentally friendly.

One way in which computer science could help to fight this kind of misinformation is by employing Artificial Intelligence (AI). Nevertheless, automatic detection of false claims (e.g., fake news detection) has proven challenging even for the most sophisticated AI methods. Moreover, false positives (i.e., a claim wrongly tagged as greenwashing) could put a company's reputation at risk. Therefore, instead of providing a solution for automatically classifying green claims into false (greenwashing) or real ones, we want to empower users with the necessary information about the company's environmental practices.

We are looking for a motivated student willing to dive deep into the most advanced AI technologies to help people make informed decisions about sustainable suppliers and business partners. Different directions for the master thesis are welcomed. One possible direction could be to draw the potential user's attention to "green claims" made by the companies on their website or social network (using AI). Another direction could be to design an AI model to classify potential documents which support those green claims -- those are available on ecotrek's Knowledge Base. Last but not least, explainability methods can be explored to provide people a good understanding of AI's decisions about greenwashing.

### **General Overview of the tasks:**

1. Frame the problem: definition of (several) research questions (RQ) to be answered.
2. Search for related work and top-shelf AI techniques for answering the RQ.
3. Collect the raw data, process, and consolidate a benchmark.
4. Design AI method(s) and make it available as Open Source at ecotrek's repository.
5. Perform tests and communicate the findings.
6. Write the thesis.

### **STUDENT PROFILE:**

- BA in Computer Science, Software Engineering or related.
- Strong knowledge of Python and familiar with machine learning libraries (e.g. PyTorch and Scikit-Learn).

### **PROJECT PROFILE:**

- Analysis: 3/10
- Implementation: 5/10
- Literature: 2/10

**HOW TO APPLY:** You can apply for this thesis by email together with CV and transcripts of Grades.

### **CONTACT:**

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