

## Profile

Polytential is looking for an AI Architect to join the team. Together with the team you will be responsible for the development of self/semi-supervised algorithms as well as setting up the necessary software infrastructure.

## The company

Polytential develops the Virtual Chemist, a device for the plastic recycling industry that improves the quality and production efficiency of recycled plastics. We give recyclers insight into the composition of plastic waste, using artificially intelligent algorithms that interpret sensor data. The Virtual Chemist is a hardware product with its own GUI. It integrates hyperspectral sensors with in-house developed AI algorithms. Our vision is to make plastic recycling data driven, in order to increase the profitability and in this way push the recycling of plastics to a higher level. We maintain a sound balance between sustainability and business. The Virtual Chemist has been used in paid pilots and is almost ready for market entry.

We are a multidisciplinary and international team of 8 people, that aims to push technology further. We believe that the best way to develop a product is through iterations and trying things, without fear of failure. Our office is in Delft, The Netherlands, at the incubator Yes!Delft, where the environment and culture is based on cooperation and celebrating successes, but also failures. Our team's mentality is to work hard and play hard, thereby creating a perfect balance between an informal atmosphere and a high productivity environment.

The self/semi-supervised algorithm development project is co-funded by the European Union.

## Job description

- Design, develop, validate and test different approaches to self-supervised learning using data from hyperspectral cameras and RGB cameras
- Help develop infrastructure needed to support the feedback loops for self-supervised learning
- Liaison with the mechanical and software departments to reach consensus on direction

## Qualifications & Experience

Required:

- PhD in Artificial Intelligence, Data Science, Applied Mathematics or similar
- Good knowledge of mathematical descriptions of AI algorithms
- Strong background in statistics and probability
- Experience in algorithm design and implementation
- Skilled in AI/CV frameworks/libraries (TensorFlow, OpenCV or similar)
- Skilled in programming (Python, R or similar)
- Excellent command in English

Nice to have:

- Knowledge of stream processing and distributive computing
- Knowledge of database management (NO-SQL and SQL)
- Experience in writing high performance algorithms
- Dev-Ops knowledge

## Our offer

- AI PhD level competitive salary
- Relocation costs to The Netherlands from any place in Europe
- Project management course(s) at university level
- Budget and time to visit relevant conferences

For more information please contact Jeroen Cevaal (+31 6 40021224) or send an email to [jobs@polytential.eu](mailto:jobs@polytential.eu).

