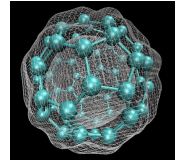


## Postdoc position in Deep Learning / AI

Pollen Metrology is a deeptech company specialized in the creation of intelligent software for the production of high-performance materials. Pollen has developed a unique artificial intelligence framework that interfaces with the most advanced **machine learning** techniques. This unique technology allows the **analysis** of data flows necessary for the development and production to automatically analyze images from electron microscopes.



To launch a new range of products, worldwide, Pollen is recruiting new collaborators to strengthen its research team working on semiconductor industry applications. You will be attached to the research/algorithms team, a multidisciplinary team (metrology, physics, computer science, image processing, deep learning, data fusion) based in our headquarters in Moirans, France.

### Your missions

The DeepSmart project consists of the development of a new Artificial Intelligence (**AI**) module to combine metrology and detection/classification of defects. This newly developed module will enrich our software that contributes to enhance the semiconductor industry research and production and by doing so you will indirectly participate in the creation of the next generation of computer and electronic devices.

Your **main task** will be to perform defects detection and classification on electronic microscope images. There are different challenges, for instance the large range and variability of defects makes their detection highly challenging since the detection requires to be particularly accurate, in order to achieve precision measurement and characterisation on these defects. Additionally the classes can be unbalanced since some key defects are rare and therefore less representative in the dataset.

You will be in charge of proposing, prototyping and **developing Deep learning algorithms** mainly for **detection, classification** and **analyzing metrological data** of various types. You will use frameworks such as TensorFlow or PyTorch, and internal technologies that you will help to develop. You will publish your key results in semiconductor domain conferences.

### Required skills

- Very good knowledge of **deep learning**.
- Good knowledge of **classification** algorithms.
- Good knowledge of **statistics**.
- Good knowledge of **Python** (TensorFlow or PyTorch, scikit-learn, etc).
- Knowledge in **image processing**.
- Fluency in English.
- You are eager to learn.

### Environment

- This work will be carried out under the joint direction of Pollen Metrology and the University Clermont Auvergne, in order to favour approaches at the cutting edge of innovation.
- You will be located in the company, you will join a growing company driven by team spirit, the desire to provide high quality software that includes cutting-edge technology. At the term of the contrat, the position could be converted into a permanent position.

Send your application to [jobs@pollen-metrology.com](mailto:jobs@pollen-metrology.com)