



Datakalab is a French start-up specialized in computer vision. Since 2017, Datakalab designs solutions for automatic image analysis with applications ranging from object counting to human attribute detection (e.g. age, gender). Datakalab works with major public actors among which the city council of Cannes, the RATP and institutes of studies.

Following the legislation regarding the protection of personal data and privacy (GDPR), Datakalab doesn't store images nor individual information and only sends high level, aggregated, statistical data. This induces a strong constraint on the proposed algorithms as the streams of images are processed locally in 100 ms and instantly converted to anonymized data.

YOUR WORK

Unsupervised Few-shot Distillation:

A solution to produce efficient deep learning models, in terms of memory footprint and runtime, is the unsupervised calibration of models pre-trained using large datasets (MSCOCO, MARS, ...) to a specific use case.

YOUR TASKS

- get a grasp on Datakalab's technologies and deep learning methods for object detection.
- study how to adapt these techniques for person re-identification using tools such as siamese networks, triplet loss and mining strategies, e.g. hard negative mining.

SKILLS PROFILE

- **Master 2 or equivalent.**
- Mastery of deep learning algorithms.
- Strong knowledge in Python and more specifically Tensorflow/Keras and OpenCV libraries.

SUPERVISION

Supervised by Arnaud Dapogny, researcher in computer vision, as well as Kevin Bailly, researcher at Datakalab and associate professor at Sorbonne Université in machine learning. They both published in major conferences such as ICCV, CVPR and AAAI as well as journals such as TAC, TIP and IJCV. You will also be in contact with a group of developers and data-scientists

WHERE AND WHEN ?

As soon as possible

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Contract type : Internship

Salary : based on experience

Please contact us at ad@datakalab.com and lf@datakalab.com - www.datakalab.com