

# Post-doc or Research Engineer – Computer Vision - IRISA

## Context:

As part of a research and innovation project SNAC (Digital Solutions for Driving Schools) co-financed by “Région Bretagne”, the research lab IRISA and Smartmoov (a young start-up based in Rennes) are offering a 18-month contract for a research engineer or a post-doc in the field of computer science.

Specific fields related to this offer:

- Computer Vision
- Artificial Intelligence
- Software Development
- Embedded Systems

## Work description :

This offer is part of a collaborative project between IRISA and Smartmoov called “Digital Solutions for Driving Schools”. This project aims at developing a solution based on a dashcam that records driving lessons to detect mistakes made during a lesson thanks to computer vision algorithms on image and videos. In particular, the distances between the car and its neighbourhood will have to be analyzed (distance to pedestrians, other vehicles, riders...). Traffic lights, stop signs and other events that could happen during a driving lesson will also have to be considered, in order to ease the learning for the learner driver.

The proposed technological solution could be based on recent works from Adrien Rosebrock about object detection in videos and about evaluating the distances between objects in videos (<https://www.pyimagesearch.com/author/adrian/>).

The developed solution will be evaluated first on a public dataset of dashcam videos taken from the inside of cars, and then on some data provided by Smartmoov.

## Candidate profile :

- Strong background in computer science and computer vision
- Good knowledge of Python and Java programming languages
- Strong skills with the following tools: TensorFlow, Yolo, OpenCV, Ffmpeg
- Spoken and written English (at least technical) required

Degree required : PhD in Computer Science

Working place: Linkmedia research team, IRISA (Rennes) and Smartmoov (Cesson)

Contract length : 18 months

Approximate starting date : September or October, 2020

Salary : about 2400 euros / month (net)

Enquiries and application: For any information about this offer or to apply (CV + cover letter), contact:

- Simon Malinowski ([simon.malinowski@irisa.fr](mailto:simon.malinowski@irisa.fr))
- Stéphane Pau ([stephane.pau@smartmoov.solutions](mailto:stephane.pau@smartmoov.solutions))