

**Type d'offre :** Laboratory offer

**Post date :** 29.11.24

**IBISC Laboratory (Évry Univ.)**

# **M2 Internship subject | AI characterization of the MR SWI-DWI ischemic mismatch for hyperacute ischemic stroke patients**

## **Informations générales**

**Contract type :** Stage

**Contract length :** 6 months

**Education level :** Master 2

**Contact :**

[Vincent Vigneron](#)

[Hichem Maaref](#)

[Mariana Brejo](#)

**Starting date :** Sat 01/02/2025 - 12:00

**Trade :** Technicien

**Topic :** Analyse et traitement d'images

## **IBISC Laboratory (Évry Univ.) :**

The [IBISC Laboratory](#) (Informatique, Bioinformatique, Systèmes Complexes EA 4526) is a laboratory of the University of Evry Paris-Saclay, structured into four research teams: AROBAS, COSMO, IRA2 and SIAM. A particular feature of the laboratory is its multi-disciplinary research and its location on two university sites: IBGBI and PELVOUX. This specificity is also reinforced by its attachment to two distinct scientific departments: Sciences Fondamentales et Applications (SFA) and Science et Technologie (ST). The IBISC laboratory is resolutely developing a strategy of collaboration and valorization of research with industry, as well as a research strategy open to the international arena. In 2023, the IBISC laboratory welcomed 23% of the UEVE's teaching and research staff, who hold a number of responsibilities at both the University of Evry (LMD, UFRs, IUT, VPs) and the University of Paris-Saclay (Graduate schools in Computer Science and Digital Sciences (ISN) and Engineering and Systems Sciences (SIS)).

## **Détail de l'offre (poste, mission, profil) :**

### **Context & Objectives**

According to the World Health Organization, stroke is the second leading cause of death in women, and the leading cause of chronic functional disability in adults, with 17 million victims, 31% of whom were under the age of 65. 150,000 people are hospitalized with stroke every year in France, i.e. one every 4 minutes. Ischemic stroke is caused by a blood clot (thrombus) blocking a cerebral artery, resulting in a lack of oxygen to the brain tissue supplied by the artery. Diagnosis and treatment are urgently required.

### **Profile & Skills required**

- Ability to understand and develop adaptive learning algorithms and to process medical data, index it and use it in an operational system to achieve the above mission;
- Programming skills: Python or C / C ++ ;
- Practice of Tensorflow and Pytorch would be a plus ;
- French is not mandatory. English is fluent.

Work will be carried out in the IBISC laboratory on the Evry campus of the Université Paris-Saclay. IBISC develops multidisciplinary, theoretical and applied research in information science and engineering, with a strong focus on healthcare applications. The successful candidate will be integrated into an interdisciplinary team with a consortium of data scientists and clinicians from CHSF and CHRU de Tours. The project is multidisciplinary, at the interface of machine learning, computer science and medicine. Scientific and material conditions The student will be supervised by Mariana Brejo, Hichem Maaref, and Vincent Vigneron from the IBISC laboratory (Université d'Évry, Université Paris-Saclay). All are experts in machine learning, signal and image processing.

**URL de l'offre :** <https://www.dataia.eu/sites/default/files/24-09-05Mariana.pdf>

**Lien vers l'offre sur le site dataia.eu :** <https://da-cor-dev.peppercube.org/node/1171>