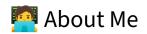
# Youwan Mahé

### PHD STUDENT Rennes, France

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I am a PhD student within the Empenn and MALT research teams, funded by Siemens Healthineers. My PhD research focuses on anomaly detection and segmentation for the characterization of poststroke recovery.

I am naturally curious with a passion for exploring electronics, meteorology, chemistry, physics, and AI.



#### Education

#### **PhD in Computer Sciences**

Nov 2024 - present

Anomaly detection and segmentation for the characterization of post-stroke recovery Université de Rennes, Rennes (FR)

#### Master's degree in Nanomedecine & Structural Biology

Sept 2022 - June 2024

Université Grenoble Alpes, Grenoble (FR)

With high honours

#### Master's degree in Biomedical Engineering

Sept 2022 - June 2024

Institut National Polytechnique de Grenoble, Grenoble (FR)

With highest honours

#### **Bachelor of Engineering**

Sept 2021 - June 2022

Institut National Polytechnique de Grenoble, Grenoble (FR)

#### **Bachelor of Technology in Instrumentation and Measurement**

Sept 2019 - June 2021

Université de Rennes 1, Lannion (FR)

With highest honours



## 💼 Research Experience

PhD in computer sciences

Nov 2024 - Present

Supervisors: Dr. Elise Bannier, Pr. Elisa Fromont, Pr. Francesca Galassi, Dr. Stéphanie Leplaideur

Title: Anomaly detection and segmentation for the characterization of post-stroke recovery

Tuniv Rennes, Inria, CNRS, Inserm, IRISA UMR 6074, Empenn, Rennes, France

#### Master Internship (2nd year)

Feb - June 2024

Supervisors: Dr. Burhan Rashid Hussein, Dr. Cedric Meurée, Pr. Francesca Galassi

Title: Improving multiple sclerosis lesions segmentation in 3D spinal cord magnetic resonance images with recent advancements in deep learning

Tuniv Rennes, Inria, CNRS, Inserm, IRISA UMR 6074, Empenn, Rennes, France

#### Master Internship (1st year)

Feb - June 2024

Supervisor: Pr. Marina Eckermann

Title: Multi-modal X-ray data analysis of brain tissue

F European Synchrotron Radiation Facility (ESRF), Grenoble, France



Preprints available on HAL

- 1. **Mahé, Youwan**, Bannier, E., Leplaideur, S., Fromont, E. & Galassi, F. *Unsupervised Generative Models for Post-Stroke Anomaly Detection* in preparation for submission to *ISBI 2026*.
- 2. **Mahé, Youwan**, Bannier, E., Leplaideur, S., Fromont, E. & Galassi, F. *Unsupervised Deep Generative Models for Anomaly Detection in Neuroimaging: A Systematic Scoping Review* working paper or preprint. Oct. 2025. https://inria.hal.science/hal-05304920.
- 3. **Mahé, Youwan**, Leplaideur, S., Fromont, E., Bannier, E. & Galassi, F. *Détection et segmentation des anomalies cérébrales post-AVC* in *IABM 2025 Colloque Français d'Intelligence Artificielle en Imagerie Biomédicale* (Nice, France, Mar. 2025), 1–2. https://hal.science/hal-04910273.



## Teachings

Year	University	Public	Course	N. of hours	Туре
2025	ESIR Université de Rennes	Graduate students in Computer Science – Information Systems option	Machine Learning	24	Lab Sessions

## Scientific outreach

- **Semaine du cerveau (Brain week)**: Organization and preparation of a quizz about neuroimaging research (the jobs, image processing, neuroimaging methods, findings about the brain, etc.). Presentation during the Semaine du cerveau 2025 at Café des Champs Libres, Rennes.
- 1 scientifique, 1 classe: chiche!: 1-hour talk for high school students on the challenges of AI technologies at Lycée La Mennais in Ploërmel.
- **Fête de la science 2025 (Science Festival)**: Presentation of my research work and the challenges of AI technologies at the Village des Sciences, Ploufragan.