

# Adrien Fois

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## Education

### PhD in Computer Science

LABORATOIRE LORRAIN DE RECHERCHE EN INFORMATIQUE ET SES APPLICATIONS, UNIVERSITY OF LORRAINE

Nancy, France

2022

### Master in Systemic and Synthetic Biology

UNIVERSITY PARIS SACLAY

Evry, France

2017

### Master in Embedded Systems and Microsystems

UNIVERSITY PAUL SABATIER

Toulouse, France

2016

### Bachelor in Electrical Engineering and Information Technology

UNIVERSITY OF APPLIED SCIENCES

Offenburg, Germany

2015

### Bachelor in Computer Science

UNIVERSITY OF APPLIED SCIENCES

Neuchâtel, Switzerland

2014

### Bachelor in Electrical and Electronic Engineering

UNIVERSITY OF APPLIED SCIENCES

Haguenau, France

2014

## Scientific publications

### Papers under review :

- Adrien Fois and Bernard Girau. «Enhanced representation learning with latency coding in sparsely spiking neural networks». In Frontiers in Computational Neuroscience. 2023 (In submission)
- Adrien Fois and Bernard Girau. «Self-Organizing Temporally Coded Representation Learning». In International Conference on Artificial Neural Networks (ICANN). 2023 (In submission)

### Publications :

- Adrien Fois, Horacio Rostro-Gonzalez and Bernard Girau. «Unsupervised learning of visual representations using delay-weight spike-timing-dependent plasticity». In International Joint Conference on Neural Networks (IJCNN). 2022
- Adrien Fois and Bernard Girau. «A Spiking Neural Architecture for Vector Quantization and Clustering». In International Conference on Neural Information Processing (ICONIP). 2020
- Jan Tekülve, Adrien Fois, Yulia Sandamirskaya, and Gregor Schöner. «Autonomous Sequence Generation for a Neural Dynamic Robot : Scene Perception, Serial Order, and Object-Oriented Movement». In Frontiers in Neurorobotics. 2019
- Yann Bernard, Emeline Buoy, Adrien Fois, and Bernard Girau. « NP-SOM : Network Programmable Self-Organizing Maps ». In International Conference on Tools with Artificial Intelligence (ICTAI). 2018

## Teaching

### C language

LECTURES/EXERCICES - 1ST YEAR IN COMPUTER SCIENCE

- Functions, Arrays, Pointers, Structure and Unions, Dynamic Memory Allocation, Scope

2022

Télécom Nancy

### C language and data structures

EXERCICES - 1ST YEAR IN COMPUTER SCIENCE

- Linked list, Hashing, Binary Tree, Balanced Binary Tree

2022

Télécom Nancy

### Assembly language

EXERCICES - 1ST YEAR IN COMPUTER SCIENCE

- Registers, Instructions, Conditions, Loops, Arrays, Recursion

2022

Télécom Nancy

### Mathematics for Computer Science

EXERCICES - 1ST YEAR IN COMPUTER SCIENCE

- Propositional logic : Syntax, Semantic, Clausal Form, Demonstration, Resolution

2021

Télécom Nancy

### Unix Shell

EXERCICES - 1ST YEAR IN COMPUTER SCIENCE

- Navigation, File Permission, Pipes and Filters, Regex

2021

Télécom Nancy

## Computational Neuroscience

LECTURES/EXERCICES - 2ND YEAR IN COGNITIVE SCIENCE

- Biophysical models for Neurons and Synaptic Plasticity, Python Programming

2020

*Institut des sciences du Digital,  
Management et Cognition*

## JavaScript language

LECTURES/EXERCICES - 2ND YEAR IN COMPUTER SCIENCE

- Object-Oriented Programming, Prototypes, Asynchronous Operations, Promises

2019

*Institut Universitaire de Technologie  
Nancy-Charlemagne*

## Reviews

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### Conferences :

- International Conference on Artificial Neural Networks (ICANN). 2023
- International Joint Conference on Artificial Intelligence (IJCAI). 2019

## References

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### Bernard Girau

FULL PROFESSOR · UNIVERSITY OF LORRAINE

### Horacio Rostro-Gonzalez

FULL PROFESSOR · UNIVERSITY OF GUANAJUATO

### Gregor Schöner

FULL PROFESSOR · RUHR UNIVERSITY BOCHUM

*Former PhD Supervisor*

*bernard.girau@loria.fr*

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