Solène **Mirliaz**

• Contact •

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Driving License

• Languages •

French – Mother-tongue
English – Fluent
Spanish – Beginner
Portuguese – Beginner

• Skills •

Programming:
C, C++, (O)Caml,
Python, Ruby, Scala

Operating systems:
Linux

Miscellaneous:
LATEX, Matlab

• Training •

2018 – 2019 **Second year of Master in Research and Computer Science innovation**
École Normale Supérieure de Rennes — Université de Rennes 1

2017 – 2018 **Prélab**
École Normale Supérieure de Rennes — Université de Rennes 1
Prélab is a year dedicated to internships in foreign laboratories.

2016 – 2017 **First year of Master in Research and Computer Science innovation**
École Normale Supérieure de Rennes — Université de Rennes 1

2015 – 2016 **Bachelor degree in Research and Computer Science innovation**
École Normale Supérieure de Rennes — Université de Rennes 1
Theory and practice of Computer Science. With Distinction

2013 – 2015 **Preparatory classes (MPSI-MP)**
Lycée Michel Montaigne, Bordeaux

2013 **Scientific Baccalaureate**
Lycée François Mauriac, Bordeaux
With Distinction.

• Experience •

Jan. – June 2019 **Internship of Master**
Irisa - Inria, Rennes, France
A relational and flow-insensitive static analysis
Supervisor: David Pichardie

Jan. – June 2018 **Internship of Prélab**
Chalmers University, Göteborg, Sweden
Compiling to Category for smart contracts.
Supervisor: Alejandro Russo

Sept. – Dec. 2017 **Internship of Prélab**
Saarland Informatics Campus, Saarbrücken, Germany
Static Analysis of Temporal Memory Safety.
In memory unsafe program, like C, memory space can be allocated and de-allocated by the programmer without control. To avoid undefined behaviour provoked by accesses to deallocated memory, programs are instrumented so that a test is performed before memory accesses. But has it slow down programs, static analysis are designed to identify the tests that can be safelyremoved.
Supervisor: Sebastian Hack

May – Aug. 2017 **Internship of First Year of Master**
UFMG Compilers Lab, Belo Horizonte, Brazil
Automatic stub generation for C functions.
In order to evaluate the empirical complexity of a C function in a program, it can be necessary to isolate it and generate random inputs for it. However these input must not provoke error such as out-of-bound memory accesses.
During this internship, I modelize the dependence between inputs and arrays with a graph and resolve the dependences thus obtained to determine ranges of possible value for each input variables.
Supervisor: Fernando Magno Quintão Pereira

May – July 2016	**Internship of Bachelor**
	INSERM Stem Cell and Brain Research Institute, Lyon, France
	Situation Model: a narrative structure for human-robot interaction.
	The internship involved designing a model to represent an narrative event. This event could then be told by the iCub robot, which was already able to form sentences. The code of this project was mainly in C++.
	Supervisor: Peter Ford Dominey and Grégoire Pointeau

● Publications ●

2017 Narrative Constructions for the Organization of Self Experience: Proof of Concept via Embodied Robotics
A.-L Mealier, G. Pointeau, S. Mirliaz, K. Ogawa, M. Finlayson, P. Dominey