

# Hugo Bazille

Temporary Lecturer and Research Assistant -  
SUMO Team

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## Formation

### PhD

2016-2019 **PhD in Computer Science**, INRIA - SUMO Team, Detection and quantification of events in stochastic systems.

Supervisors : [Eric Fabre](#) and [Blaise Genest](#)

### Student at ENS Rennes

2011-2015 **Elève normalien**, ENS Rennes and Université Rennes 1, Rennes.

Master in Computer Science, ENS Rennes diploma, Bachelor in Mathematics

### Preparatory classes to the Grandes Ecoles

2009-2011 **CPGE MPSI-MP**, Lycée Corneille, Rouen.

## Professional experiences

### Jobs

2019-2020 **Temporary Lecturer and Research Assistant (ATER)**, Université Rennes 1, Rennes.

Full time.

2015-2016 **Mathematics teacher**, Éducation nationale, Rennes.

Teaching in middle school.

### Internships

2014 **Peptides folding simulation**, Université Paris VI, Paris.

2014 **Modeling of the protein design problem**, Inria Rennes, Rennes.

2013 **Study of ASP language**, Institut für Informatik, Potsdam - Germany.

2012 **Reachability properties study**, Ecole Polytechnique, Palaiseau.

## Research

### PhD thesis

2019 **Detection and quantification of events in stochastic systems**, Defended on december 2, 2019.

### Publications

2019 **Classification among Hidden Markov Models**, 39th conference on Foundations of Software Technology and Theoretical Computer Science, FSTTCS 2019.

2019 **Certification des réseaux neuronaux profonds : un état de l'art en 2019**, Artificial Intelligence & Defense, AI&D 19.

2018 **Complexity reduction techniques for quantified diagnosability of stochastic systems**, 14th Workshop On Discrete Event Systems, WODES 2018.

2018 **Symbolically Quantifying Response Time in Stochastic Models using Moments and Semirings**, 21st International Conference on Foundations of Software Science and Computation Structures, FoSSaCS 2018.

2017 **Diagnosability degree of stochastic discrete event systems**, 56th IEEE Conference on Decision and Control, CDC 2017.

- 2014 **Computational Protein Design: trying an Answer Set Programming approach to solve the problem**, *10th Workshop on Constraint-Based Methods for Bioinformatics*, WCB 14.
- 2014 **On The Complexity of Bounded Time Reachability for Piecewise Affine Systems**, *8th International Workshop on Reachability Problems*, RP2014.

Reviewer

**ATVA 2017, WODES 2018.**

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## Teaching

- 2019-2020 **Algorithms and Experimental Complexity**, *Practical work : 26h*, 1<sup>st</sup> year of bachelor - Université Rennes 1.
- 2019-2020 **General Computer Science**, *Tutorials : 20h - Practical work : 20h*, 1<sup>st</sup> year of bachelor - Université Rennes 1.
- 2019-2020 **Java classes**, *Practical work : 12h*, 3<sup>rd</sup> year of MIAGE bachelor - Université Rennes 1.
- 2016-2019 **Algorithmic**, *Tutorial : 20h/year*, 1<sup>st</sup> year at ENS Rennes.
- 2017-2019 **Fundamental algorithmic**, *Tutorial : 22h/an*, Bachelor of Computer Science - Université Rennes 1.
- 2016-2018 **Graphs algorithms**, *Tutorial : 12h/year - Practical work : 12h/year*, Ecole Supérieure d'Ingénieurs de Rennes.

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## Languages

French Mother tongue  
English Fluent  
Spanish Notions

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## Other competences

Programming languages **Python, OCaml, C(++), Java.**

Tools **Formal verification and proofs tools.**

Office tools **LaTeX, distributed version-control system software (SVN-git), office suites.**