

Walid BENNACEUR

Postdoctoral researcher

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Research Experience

Research fellow at Laboratoire Génie Industriel (Centrale Supélec) & Safran Group

2020 – present **Graphical representations and animations for avionics systems engineering.**
Developing a prototype of a design environment for graphical representations and simulations.

Temporary teaching and research associate at Laboratoire DAVID, Université de Versailles

2018 – 2020 **Machine Learning in service of advancing reliability and safety analysis.**
Improve risk assessment algorithms by using machine learning methods.

PhD researcher at Laboratoire DAVID, Université de Versailles

2015 – 2018 **Formal models for safety analysis of complex systems.**
Developing a tool-supported model-based methodology to analyze both safety and performances of a complex system and analyzing sensitivity to observe the system behaviors.

Education

2015–2019 **PhD, Computer Sciences, Université de Versailles Saint Quentin-en-Yvelines, Versailles.**
Formal models for safety analysis of complex systems. More details <http://theses.fr/s147466>

2013–2015 **Master, Computer sciences, Université de Versailles Saint Quentin-en-Yvelines, Versailles.**
Safety analysis a an electrical topology of a data center system.

2009–2013 **Bachelor of Mathematics, Space Technology Institute, Oran (Algeria).**
Satellite image processing.

Publications

Journal Articles

- 2021 **WM. Bennaceur**, Reliability and Performance analysis of a data center network architecture: A review, Article submitted to *the Advances in Science, Technology and Engineering Systems Journal (ASTEJ)*.
- 2019 **WM. Bennaceur and L. Kloul**, Formal models for safety analysis of a data center system, In *Reliability Engineering and System Safety*.

Conference Proceedings

- 2021 **WM. Bennaceur and M. Batteux and T. Provisnova and A. Rauzy**, Benefits of graphical animations of advanced AltaRica models, In *European Safety and Reliability Conference*. Angers, France
- 2021 **WM. Bennaceur and M. Batteux and T. Provisnova and A. Rauzy**, AltaRica 3.0 modeling pattern for production systems availability, In *European Safety and Reliability Conference*. Angers, France
- 2021 **WM. Bennaceur and L. Kloul**, Production trees analysis and application to an electrical power system of a data center, In *ISSAT International Conference on Reliability and Quality in Design*. Miami, USA

- 2018 **WM. Bennaceur and L. Kloul**, Electrical and thermal system impact on the availability of a data center system, In *International Conference on System Reliability and Safety*.
Barcelona, Spain
- 2028 **WM. Bennaceur and L. Kloul**, Reliability and performance analysis of a data center network architecture, In *37th International Performance Computing and Communications Conference*.
Orlando, USA
- 2021 **WM. Bennaceur and L. Kloul**, formal models for safety analysis of a data center system, In *ISSAT Maîtrise des risques et transformation numérique : opportunités et menaces*.
Reims, France
- 2017 **WM. Bennaceur and L. Kloul**, Safety analysis of a data center electrical system using production trees, In *Model based Safety and Assessment 5th International Symposium*.
Trento, Italy

Computer skills

Programming Languages	C++, C, AltaRica, Lisp, JAVA, Python, R
Web Technologies	HTML 5, PHP, CSS, Javascript
Database	SQL, MySQL, Apache
Industry	Model-based systems engineering, Electrical and thermal systems, Simulation
Robotics	Raspberry PI, Arduino
Networking	IP routing, NS2, NS3
Misc.	Academic research, Teaching

Teaching Assistantship

- 2017, 2018 : **Advanced languages: C++ and Lisp**, Univeristé de Versailles.
- 2018, 2019 : **Advanced languages: C++ and Lisp, Computers networks, Algorithmic**, Université de Versailles.
- 2019, 2020 : **Signal processing, Algorithmic, Graph theory**, Université de Versailles.
- 2020, 2021 : **Algorithm complexity**, Ecole Centrale Supélec.

Awards

- 2015 **Programming Contest Finalist**, 6th place ACM SIGMOD 2014 Programming Contest.
- 2018 **Best paper presentation**, in 38th IEEE International Performance Computing and Communications Conference, Orlando, USA.

Referees

Available on request