Maxime Raynal

Computer Science & Applied Mathematics

Education

2018–2019	**Master's degree in Applied Mathematics**, *ENSIMAG / University of Grenoble-Alpes.* Speciality Operations Research, Combinatorics & Optimisation ; with highest honors
2017–2018	**Maîtrise in Computer Science**, *ENSIMAG / University of Grenoble-Alpes.* Master of Science of Informatics in Grenoble ; with high honors
2015–2017	**Bachelor in Computer Science**, *University of Grenoble-Alpes.* With highest honors

Publications

A. Bouillard, M. Buob, M. Raynal, and A. Salaün. Log analysis via space-time pattern matching. In *2018 14th International Conference on Network and Service Management (CNSM)*, pages 303–307, Nov 2018.

Anne Bouillard, Marc-Olivier Buob, Achille Salaün, and Maxime Raynal. Dig-dag: stockage et recherche de motifs dans un flux d'événements. In *ALGOTEL 2020: 22èmes Rencontres Francophones sur les Aspects Algorithmiques des Télécommunications*, 2020.

Patents

M-O. Buob, A. Bouillard, M. Raynal: DIG-DAG construction for root-cause analysis. European Patent Office - EP3550453A1 ; Nokia Bell Labs, 2018

Professional experience

March 2020 - ongoing	**Research Engineer / PhD student**, *Nokia - Bell Labs (Paris) & LIG (Grenoble).* PhD in Mathématics & Computer Science on the subject: "Alarm prediction in communication networks via space-time pattern matching and explainable machine learning" under the direction of Georges Quénot at the LIG and Marc-Olivier Buob & Élie de Panafieu at Nokia.
2017–2020	**Assistant teacher**, *Université Grenoble-Alpes.* Assistant teacher in Mathematics & Computer Science in Grenoble University.

October 2019 - February 2020	**Research Engineer**, *Laboratory G-SCOP*, Grenoble. Research & implementation of a software prototype on the Erdös-Sand-Sauer-Woodrow conjecture (monochromatic reachability in arc-colored digraphs)..
February - August 2019	**Research Engineer Intern**, *Naver Labs Europe*, Meylan. Internship of 6 months on the subject : 'Multicriteria Journey Planning in Multimodal Public Transit Networks'. Distinguished for the 'Naver Labs Europe Intern Day Award 2019'
Summer 2018	**Research Engineer Intern**, *VERIMAG lab*, Grenoble. Internship of 4 months on the subject : 'Accurately Predicting I-cache Timing Attacks Vulnerability'.
Summer 2017	**Research Engineer Intern**, *Nokia-Bell Labs*, Paris. Internship of 3 months on the subject : 'Alarm Prediction via Space Time Pattern Matching'.
2005–2015	**Circus arts teacher / Circus artist**. Circus arts teacher for kids & adults, mainly in Circomobile (Annecy). Circus artist : cabarets, theatres, street shows in France, Germany, Norway, Greece, Turkey, Thailand, England....

Computer Science & Applied Mathematics

Specialities	Algorithmics, Graph Theory, Theory of Languages, Machine Learning, Deep Learning, Operations Research . . .
Languages	Python, C, Rust, Java, X8086, OPL, . . .
Softs/utils	git, emacs, gdb/radare2, Cplex, PyTorch, bison/flex, jupyter, latex, openMP, Open MPI, wireshark, RabbitMQ/pika, numpy, scipy, sk-learn . . .
Maths	Combinatorics, Arithmetics, Convex Optimisation, Probas/Stats . . .
OS	Uses Ubuntu since 12.04. Good bases with Windows & IOS

Languages

French	**Native**	
Anglais	**Fluent (C2)**	*Lived 4 years abroad ; language spoken at home*

Interest / Hobbies

Circus	25 years of practice : juggling, balancing, acrobatics, theatre. Conferences on the theme "The mathematics of juggling", and organization of events in Grenoble's schools to show kids links between juggling and maths.
Associative life	Treasurer of the association Argument Massue in Grenoble from 2016 to 2019. Member of the bureau of the association Circomobile, in Annecy from 2006 to 2011. Co-organizes circus arts festivals around Grenoble.
Moutain	Hiking & climbing.