Matthieu Jimenez

Ph.D. in Computer Science

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in matthieujimenez

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29 y.o − French

Degrees

- 2018 **Ph.D in Computer Science**, SnT, University of Luxembourg, Luxembourg. Title: Evaluating Vulnerability Prediction Models, Grade: Excellent
- 2014 Engineer's degree in Computer Science, Ecole Polytechnique Universitaire Polytech Nice Sophia, Sophia Antipolis, France.

 Equivalent to MSc in Computer Science, Major: Security (Valedictorian).
- 2013 Engineering Certificate, Ecole Polytechnique de Montréal, Montréal, Canada. obtained through a one year exchange with a grade of 4,38/5

Publications

- 2019 The Importance of Accounting for Real-World Labelling When Predicting Software Vulnerabilities, FSE'19, Distinguished Paper Award, Matthieu Jimenez, Renaud Rwemalika, Mike Papadakis, Federica Sarro, Yves Le Traon and Mark Harman.
- 2018 Evaluating Vulnerability Prediction Models, Thesis, Matthieu Jimenez.
 - Are mutants really natural? A study on how "naturalness" helps mutant selection, *ESEM'18*, Matthieu Jimenez, Thierry Titcheu Chekam, Maxime Cordy, Mike Papadakis, Marinos Kintis, Yves Le Traon and Mark Harman.
 - Enabling the Continuous Analysis of Security Vulnerabilities with Vul-Data7, SCAM'18, Matthieu Jimenez, Yves Le Traon, Mike Papadakis.
 - On the impact of tokenizer and parameters on n-gram based code analysis, *ICSME'18*, Matthieu Jimenez, Maxime Cordy, Yves Le Traon, Mike Papadakis. including an artefact paper
- 2017 Analyzing complex data in motion at scale with temporal graphs, *SEKE'17*, Thomas Hartmann, Francois Fouquet, Matthieu Jimenez, Romain Rouvov and Yves Le Traon.
- 2016 An Empirical Analysis of Vulnerabilities in OpenSSL and the Linux Kernel, APSEC'16, Matthieu Jimenez, Mike Papadakis and Yves Le Traon.
 - Vulnerability Prediction Models: A case study on the Linux Kernel, *SCAM'16*, Jimenez, Matthieu and Papadakis, Mike and Le Traon, Yves.
 - **Profiling android vulnerabilities**, *QRS'16*, Matthieu Jimenez, Mike Papadakis, Tegawendé Bissyande, François D Assise and Jacques Klein.
- 2014 An architecture to support the collection of big data in the internet of things, SERVICES'14, Cyril Cecchinel, Matthieu Jimenez, Sébastien Mosser and Michel Riveill.

Experience

August 2020 – Research Associate, SnT, University of Luxembourg, Luxembourg.

today Research on Vulnerability Prediction Models and Software Evolution.

2018 – 2020 R&D Engineer, DataThings, Luxembourg, Luxembourg.

Fullstack developer (Java, Typescript, React) on various data analytics projects (Smart-Grid, Advertisement, Manufacturing) and involved in the development of the core indexing structures of the Greycat technology (C).

2014–2018 **Ph.D Student**, SnT, University of Luxembourg, Luxembourg.

Research on Vulnerability Prediction Models resulting in 9 international publications and one award.

Area of Research: Security, Machine Learning, Software Engineering and Data Mining Teaching: Introduction to Computer Science, Testing, Algorithmics

2014 Security Trainee, StreamMind, Paris, France.

6 months Internship on SEPAMailTMsecurity. Assessment of the implementation of security settings, definition of new standard for the SEPAMailTMnetwork and development of new functionalities. (C++)

2013 Security Trainee, Orange, Valbone, France.

4 months Internship on IPv6 security. Technological watch on IPv6 security. Test of the different Neighbour Discovery monitoring solutions for IPv6 and suggestion of security settings for Orange IPv6 server.

Computer Skills

OS Linux, MacOS, Windows

Programmation C, Java, Typescript, Kotlin, Python, C++, SQL, HTML, BASH, LATEX, Markdown

Framework Git, Maven, Weka, React, Webpack, Docker, Gitlab CI, Greycat

<u>DB</u> Greycat, Rocks/LevelDB, Postgre, Neo4J, MongoDB

Others Modelling, Data Structures, Network

Languages

English fluent.

French native language.

German basics.

Luxembourgish basics.

References

Pr. Yves Le Traon, SnT, University of Luxembourg, (+352) 46 66 44 5262, yves.letraon@uni.lu.

Dr. Maxime Cordy, SnT, University of Luxembourg, (+352) 46 66 44 9429, maxime.cordy@uni.lu.

Dr. Michail Papadakis, SnT, University of Luxembourg, (+352) 46 66 44 5672, michail.papadakis@uni.lu.

Hobbies

Swimming, Wake/Snow boarding, RolePlaying, Reading