

Laurent Christophe, MEng.

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Employment History

- Oct 2023 – Present  Independent Consultant focusing on Web Apps
Skills: JavaScript, TypeScript, React, Node.js, SQL, HTML, CSS
- Mar 2021 – Sep 2023  Lead Engineer for the JavaScript client of the AppMap tool suite
<https://appmap.io>
Visualization of program execution via code instrumentation
Skills: JavaScript, TypeScript, Agile Methodology, Git workflow, React
- Jan 2021 – Mar 2021  Lead Engineer for the prototype of EasyWanit
<https://www.wanit.com/easywanit>
A mobile application built in Ionic handling a custom Bluetooth protocol
- Sep 2012 – Dec 2020  Ph.D. student at Vrije Universiteit Brussel
Open source contributions, written academic English, teaching duties

Education

- 2012 – Present  Ph.D. in Computer Science (under review; degree expected Summer 2025)
Vrije Universiteit Brussel
Title: Provenance-Based Dynamic Analysis in Managed Languages
Supervisors: Prof. Dr. Coen De Roover and Prof. Dr. Wolfgang De Meuter
- 2010 – 2012  Master of Science in Engineering – Computer Science
Université Libre de Bruxelles
Graduated with Great Distinction
Thesis: Iterative Typing
Supervisor: Prof. Dr. Wolfgang De Meuter
Advisor: Dr. Dries Harnie
- 2007 – 2010  Bachelor of Science in Engineering – Civil Engineering
Université Libre de Bruxelles
- 2008 – 2009  Completed the first year of studies in Physical Sciences
Université Libre de Bruxelles

Skills

-  Expert in JavaScript and TypeScript
 Competent in SQL, Python, Java, Scala, C, C++, Haskell, Scheme, and LaTeX
 Native French speaker, fluent in English, basic knowledge of Dutch

Miscellaneous Experience

- ❖ Enthusiastic programmer and open-source contributor
- ❖ Creator of Aran, a JavaScript code instrumenter
<https://lachrist.github.io/aran>
- ❖ Multiple-time Belgian podium finisher in swimming
- ❖ Head coach of the NSG swimming club in Saint-Gilles since 2011

Research Publications

- 1 A. Stuker, A. Munsters, A. Luis Scull Pupo, L. **Christophe**, and E. Gonzalez Boix. “JAS-Maint: Portable Multi-language Taint Analysis for the Web”. In: *Proceedings of the 22nd International Conference on Managed Programming Languages and Runtimes (MPLR)*. ACM. 2025
- 2 L. **Christophe**, C. De Roover, and W. De Meuter. “Aran: JavaScript Instrumentation for Heavyweight Dynamic Analysis”. In: *Proceedings of the 23rd Belgium-Netherlands Software Evolution Workshop (BENEVOL)*, vol. 3941, pp. 97–114. CEUR Workshop Proceedings. 2024
- 3 M. Vandercammen, L. **Christophe**, D. Di Nucci, W. De Meuter, and C. De Roover. “Prioritising Server Side Reachability via Inter-process Concolic Testing”. In: *The Art, Science, and Engineering of Programming*, 5. 2020
- 4 M. Vandercammen, L. **Christophe**, W. De Meuter, and C. De Roover. “Concolic Testing of Full-Stack JavaScript Applications”. In: *Proceedings of the 17th Belgium-Netherlands Software Evolution Workshop (BENEVOL)*, vol. 2361, pp. 38–42. CEUR Workshop Proceedings. 2018
- 5 L. **Christophe**, C. De Roover, E. Gonzalez Boix, and W. De Meuter. “Orchestrating Dynamic Analyses of Distributed Processes for Full-Stack JavaScript Programs”. In: *Proceedings of the 17th ACM SIGPLAN International Conference on Generative Programming (GPCE)*, pp. 107–118. ACM. 2018
- 6 A. Scull Pupo, L. **Christophe**, J. Nicolay, C. De Roover, and E. Gonzalez Boix. “Practical Information Flow Control for Web Applications”. In: *Proceedings of the 18th International Conference on Runtime Verification (RV)*, vol. 11237, pp. 372–388. Springer. 2018
- 7 L. **Christophe**, W. De Meuter, E. Gonzalez Boix, and C. De Roover. “Linvail: A General-Purpose Platform for Shadow Execution of JavaScript”. In: *Proceedings of the 23rd IEEE International Conference on Software Analysis, Evolution, and Reengineering (SANER)*, pp. 260–270. IEEE CS. 2016
- 8 L. **Christophe**, C. De Roover, and W. De Meuter. “Poster: Dynamic Analysis Using JavaScript Proxies”. In: *Proceedings of the 37th IEEE International Conference on Software Engineering (ICSE)*, vol. 2, pp. 813–814. IEEE. 2015
- 9 L. **Christophe**, R. Stevens, C. De Roover, and W. De Meuter. “Prevalence and Maintenance of Automated Functional Tests for Web Applications”. In: *Proceedings of the 30th International Conference on Software Maintenance and Evolution (ICSME)*, pp. 141–150. 2014
- 10 N. Cardozo Alvarez, L. **Christophe**, C. De Roover, and W. De Meuter. “Run-time Validation of Behavioral Adaptations”. In: *Proceedings of 6th International Workshop on Context-Oriented Programming (COP)*. ACM. 2014