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28 years old, Married



# Postdoc at TU Munich

## PhD in Computer Science

### FELLOWSHIPS

#### Research :

- 2012-... ✓ Postdoc since June 2012 in TUM (Technical University of Munich, Germany), **security testing of Web applications** (relocation of Prof. Pretschner's research group from Karlsruhe to Munich).
- 2011-2012 ✓ Postdoc (from January 2011 to June 2012) in KIT (Karlsruhe Institute of Technology, Germany), **security testing of web applications**, responsible for the testing part of the EU project <http://spacios.eu>.
- 2007-2010 ✓ PhD student at LRI (Laboratoire de Recherche en Informatique, Orsay, France), **combinatorial approaches for statistical testing in a large scale**, supervised by Marie-Claude Gaudel and Alain Denise.
- 2007 ✓ MsC student for 6 months at LRI, **random walks in very large models**.
- 2005-2007 ✓ Research student at LRDE (Laboratoire de Recherche et Développement de l'EPITA, Paris, France), Design and implementation of a new algorithm (FastRank) for the **classification of Web Pages** inspired from the PageRank algorithm, supervised by Sylvain Peyronnet.
- 2005 ✓ 3 months internship at LRI : **quality of services (QoS) for routing in mobile ad-hoc networks**.

#### Teaching :

- 2011 ✓ Teaching Assistant at KIT, **master course on advanced topics of software testing**.
- 2007-2010 ✓ Teaching Assistant at IUT Informatique (Orsay, France) :
  - **tutorials / PW** : Algorithm and C++ language (1<sup>st</sup> year students, 49h / year).
  - **Projects** : In charge of a robotic project that aims at developing a WEB interface to pilot a robot from internet (2<sup>nd</sup> year students, 30h / year).
  - **Supervision** : Internship supervisor and co-ordinator of students.

#### Development :

- 2011-2013 ✓ SPaCiTE : Revealing vulnerabilities in Web applications thanks to a secure model, available as an Eclipse plugin.
- 2009-2010 ✓ Rukia : Creation of a **free library** to randomly explore large automata with guarantees on the path and/or element coverage, <https://github.com/joudinet/rukia>.
- 2006 ✓ fixed-term contract of 8 months at **Philippe Patrimoine** : development of a Web application for portfolio management of their clients.
- 2005 ✓ Automation of professional ethics controls of stock operations realised by managers at **Philippe Patrimoine**.
- 2004 ✓ Realisation of a web-ranking study for <http://www.campus-pegasus.org> website and development of websites in PHP.
- 2003-2004 ✓ **Speaker recognition** software based on MFCC and neuronal networks. 2<sup>nd</sup>-year project at EPITA, team work in 4, in C / C++ languages.
- 2002-2003 ✓ Co-author of a 3D network game. 1<sup>st</sup>-year project at EPITA, team work in 4, in DELPHI language.

## EDUCATION

- 2007–2010** ✓ **PhD in Computer Science from Univ. Paris-Sud XI** (Orsay, France), combinatorial approaches for model-based testing and model-checking of large models, graduated with **highest honours**.
- 2006–2007** ✓ **M.Sc. in Computer Science from Univ. Paris-Sud XI** (Orsay, France), major in IT (Information Technologies), graduated with high honours (*mention très bien*).
- 2002–2007** ✓ **B.Sc. / M.Sc. in Computer Science from EPITA** (*École Pour l'Informatique et les Techniques Avancées*, Paris, France), third of his promotion in 2004, enter in 2005 to **LRDE** (*Laboratoire de Recherche et Développement de l'EPITA*), major in CSI (Scientific Calculus and Image).

## TECHNOLOGY TRANSFER

- 2009** ✓ **Interdeposit certification** of Random Uniform walk in Automata (RUKIA), *Agence pour la Protection des Programmes (APP)*, IDDN.FR.001.350014.000.S.C.2009.000.00000
- 2009–...** ✓ Rukia is available under **Lesser GNU Public license (LGPL)**, version 3, free to use but any modification must be distributed.

## COMPUTER SKILLS

- Languages :**
- ✓ C++, C, Sage, Matlab, Caml, Java.
  - ✓ **static** and **generic** programming, meta-programming in C++.
  - ✓ Scripting and tools : shells (**zsh**, bash, sh), **Ruby**, Python, Javascript, PHP, Sed, Grep.
  - ✓ Description languages and formats :  $\LaTeX$ , (X)HTML/CSS, XML, Lotos(XT), Promela.
  - ✓ Database (SQL, SQLite, PostgreSQL).
- Systems :**
- ✓ **GNU/Linux**, MacOS X, Windows.
- Software engineering :**
- ✓ Portability and packaging (**Autotools**, SCons), configuration management (**Git**, Mercurial, SVN), continuous integration (**Jenkins**), e-learning platform (**Dokeos**).
- Software :**
- ✓ Text editors (**GNU Emacs**, Eclipse), frameworks (**Ruby on Rails**, **CADP**, **SPIN**)

## RESPONSIBILITIES

- Administrative :**
- ✓ **General chair** of A-MOST 2013 workshop in Luxembourg.
  - ✓ **General chair** of A-MOST 2012 workshop in Montreal.
  - ✓ **Member of the organization** of ICST 2011 conference in Berlin.
  - ✓ **Member of the organization** of ICST 2010 conference in Paris.
  - ✓ **Representative of PhD students** from the doctoral school in computer science at Paris-Sud.
  - ✓ **Installation and administration** of a **Subversion** server at IUT Orsay.
  - ✓ **Management of publications** from ForTesSE research group.
  - ✓ **Member of the Web committee** between 2009–2010 at LRI.
- Research :**
- ✓ **Responsible for the testing part (WP3)** of the EU project SPaCioS.
  - ✓ (**Associate**) reviewer for ICST 2013, A-MOST 2013, AST 2013, ESSOS 2013, NSS 2013, SACMAT 2013, A-MOST 2012, ICST 2012, ICFEM 2009, and MajecSTIC 2009.

## International Journal :

- 2012 ✓ **A new dichotomic algorithm for the uniform random generation of words in regular languages.**  
 Johan Oudinet, Alain Denise and Marie-Claude Gaudel. In TCS, *International Journal on Theoretical Computer Science*, In Press, 2012, 22 pages.
- ✓ **Coverage-biased random exploration of large models and application to testing.**  
 Alain Denise, Marie-Claude Gaudel, Sandrine-Dominique Gouraud, Richard Lassaigne, Johan Oudinet and Sylvain Peyronnet. In STTT, *International Journal on Software Tools for Technology Transfer*, Volume 14, Pages 73–93, 2012.

## International Conferences :

- 2013 ✓ **Evaluation of ASLan mutating operators.**  
 Johan Oudinet, Alberto Calvi and Matthias Büchler. In TAP'2013, *Conference on Tests And Proofs*, Budapest, Hungary, Accepted, June 2013, 16 pages.
- 2012 ✓ **Semi-Automatic Security Testing of Web Applications from a Secure Model.**  
 Matthias Büchler, Johan Oudinet and Alexander Pretschner. In SERE'2012, *IEEE Conference on Software Security and Reliability*, Washington, USA, Pages 253–262, June 2012.
- ✓ **SPaCiTE — Web Application Testing Engine.**  
 Matthias Büchler, Johan Oudinet and Alexander Pretschner. In SECTEST'2012, *IEEE Workshop on Security Testing*, Montreal, Canada, Pages 858–859, April 2012.
- 2011 ✓ **Security Mutants for Property-Based Testing.**  
 Matthias Büchler, Johan Oudinet et Alexander Pretschner. In TAP'2011, *Conference on Tests And Proofs*, Volume 6706 of *Lectures Notes in Computer Science*, Zürich, Switzerland, Pages 69–77, June 2011.
- ✓ **Uniform Monte-Carlo Model checking.**  
 Johan Oudinet, Alain Denise, Marie-Claude Gaudel, Richard Lassaigne et Sylvain Peyronnet. In FASE'2011, *Conference on Fundamental Approaches to Software Engineering*, Volume 6603 of *Lectures Notes in Computer Science*, Saarbrücken, Germany, Pages 127–140, March 2011.
- 2010 ✓ **A new dichotomic algorithm for the uniform random generation of words in regular languages.**  
 Johan Oudinet, Alain Denise and Marie-Claude Gaudel. In GASCOM'2010, *Conference on random and exhaustive generation of combinatorial objects*, Montreal, Canada, September 2010, 10 pages.
- 2008 ✓ **Coverage-biased random exploration of large models.**  
 Alain Denise, Marie-Claude Gaudel, Sandrine-Dominique Gouraud, Richard Lassaigne, Johan Oudinet and Sylvain Peyronnet. In ETAPS, *Workshop on Model Based Testing*, Volume 220 of *Electronic Notes in Theoretical Computer Science*, Pages 3–14, March 2008.
- 2007 ✓ **Uniform random walks in very large models.**  
 Johan Oudinet. In RT'07, *ACM Workshop on Random Testing*, Atlanta, USA, Pages 26–29, ACM Press, November 2007.

## National Journal :

- 2009 ✓ **Exploration aléatoire de modèles.**  
 Johan Oudinet. In JESA, *Journal européen des systèmes automatisés*, Volume 43, Numbers 7-8-9, Pages 905–919, 2009.

## Others (thesis and local conferences) :

- 2010 ✓ **Approches combinatoires pour le test statistique à grande échelle.**  
 Johan Oudinet. PhD thesis, LRI, Univ. Paris-Sud XI, November 2010, 118 pages.
- 2008 ✓ **Uniform random exploration of concurrent systems.**  
 Johan Oudinet. In MOVEP, *MOdelling and VERifying parallel Processes*, Pages 323–328, Orléans, France, June 2008.
- 2007 ✓ **Tirages aléatoires uniformes dans des systèmes concurrents.**  
 Johan Oudinet. Master thesis, LRI, University Paris-Sud XI, Orsay, France, September 2007, 16 pages.

## Software :

- 2012 ✓ **SPaCiTE — Web application testing engine.**  
 Fault injection component to test the security of Web application thanks to a secure model of its specification, 7500 lines of code (LOC) in Java, 2 developers, Part of SPaCioS project, <http://spacios.eu>

## PUBLICATIONS / SOFTWARE (continued)

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- 2010 ✓ Rukia — Randon Uniform walk In Automata.  
Random exploration of automata with guarantees on the path and/or element coverage, 1500 LOC in C++, 1 developer, <https://github.com/joudinet/rukia>

## OTHER SKILLS / INTERESTS

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- Languages : ✓ French mother tongue.  
✓ English fluent.
- Sports : ✓ Volley-ball (regional level).  
✓ Tennis (best French ranking : 30).