

CURRICULUM VITAE – DR. NADJIB LAZAAR

PERSONAL INFORMATION

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EDUCATION

- Oct. 2008 - Sept. 2011** PhD student in Computer Science, University of Rennes1, at IRISA laboratory. **Team-project:** [Celtique](#). **Supervisors:** Arnaud Gotlieb (gotlieb@inria.fr) and Thomas Jensen (jensen@inria.fr). **Title:** A methodology and a tool for test, fault localization and automatic correction of constraints programs. **Thesis defended on December, 5th 2011.**
- Oct. 2007 - Sept. 2008** Master degree in Computer Science, University of Rennes1, France. Specialization: Information and Computing Infrastructure Security. **Upper Second Class Honors.**
Studentship from the [Michel Metivier foundation](#).
- Oct. 2002 - Sept. 2007** Engineer degree in computer science, University of ES-Senia Oran, Algeria. **Ranked first out of 120.**
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PROFESSIONAL EXPERIENCE

- Oct. 2011 - Sept. 2013** Postdoc at INRIA-Microsoft Research Joint Centre. **Team-project:** [TAO-LRI](#). **Supervisors:** Youssef Hamadi (youssefh@microsoft.com), Michèle Sebag (Michele.Sebag@lri.fr), Marc Schoenauer (Marc.Schoenauer@inria.fr). **Topic:** Cooperation control in Parallel SAT Solving using a Multi-armed Bandit Approach.
- Oct. 2008-Sept. 2011** Tutor/ Demonstrator at at IFSIC/ University of Rennes 1 (64 hours per year):
- **Operating System I.** 3rd year B.Sc. (40 practical hours) (2010-2011).
 - **Network System I.** 3rd year B.Sc. (8 tutorial hours - 40 practical hours) (2010-2011).
 - **Algorithmic and Imperative Programming I.** 1st year B.Sc. (40 tutorial hours - 100 practical hours) (2008-2011).
 - **Algorithmic and Imperative Programming II.** 2nd year B.Sc and DEUG. (50 practical hours) (2009-2010).
 - **Software engineering I.** 2nd year B.Sc. (24 practical hours) (2008-2009).
- 4 Jan. 2010 - 26 Feb. 2010 & 17 May 2010 - 21 Jun. 2010** Supervision of undergraduate research placement (student of 3rd year B.Sc). Subject: An automatic instance checker of OPL constraint coverage.

SEMINARS AND TALKS

- Testing Constraint Programs. 14 Apr. 2011, within a visit to the CRIL lab. Lens (France). Lakhdar Sais (sais@cril.fr).
- CPTTEST: A framework for the automatic fault detection, localization and correction of constraint programs. In CSTVA'11 tool demonstration, 25 Mar. 2011, at Berlin (Germany).
- A Framework for the Automatic Correction of Constraint Programs. In ICST'11 presentation conference, 24 Mar. 2011, at Berlin (Germany).
- Fault Localization in Constraint Programs. In ICTAP'10 presentation conference, 27 Oct. 2010, at Arras (France).
- An automatic Fault detection & localization in CP. 15 Sept. 2010, within a visit to the Constraint Reasoning Group in Microsoft Research Cambridge (MSRC), Youssef Hamadi (youssefh@microsoft.com).
- On testing Constraint programs. In CP'10 presentation conference, 08 Sept. 2010, at St Andrews (Scotland).
- A testing process based on conformity relation in constraint programs. In MTV2 meeting, 28 June 2010, Grenoble (France).
- A testing framework for constraint programs. 08 Apr. 2010, within a visit to LINA Lab. Nantes (France), Laurent Granvilliers (Laurent.Granvilliers@univ-nantes.fr), Nicolas Beldiceanu (Nicolas.Beldiceanu@mines-nantes.fr)
- A conformity based testing of Constraint programs. In CAVERN project meeting, 30 Mar. 2010, at Nice (France).
- Vers une Théorie du Test des programmes à contraintes. In JFPC'09 conference presentation, 03 June 2009, at Orléans (France).

EXTRACURRICULAR
ACTIVITIES

2010 May 3-7 Attended the ACP'10 Summer School on Constraint Programming: Introduction and Perspectives. Aussois(France).

2009 June 13-12 Attended the EJCP'09 (Ecole Jeunes Chercheurs en Programmation) Summer School on Software Programming. Dinard, Rennes (France).

Member of Association for Constraint Programming ([ACP](#)) and the French association for constraint programming [AFPC](#) (Association Française pour la Programmation par Contraintes).

Reviewer for JFPC'09, ICST'10, TAP'10, TAP'11, JFPC'12.

SEMINARS AND TALKS

- Vers une Théorie du Test des programmes à contraintes. In JFPC'09 conference presentation, 03 June 2009, at Orléans (France).
- A conformity based testing of Constraint programs. In CAVERN project meeting, 30 Mar. 2010, at Nice (France).
- A testing framework for constraint programs. 08 Apr. 2010, at LINA Labs. Nantes (France).
- A testing process based on conformity relation in constraint programs. In MTV2 meeting, 28 June 2010, Grenoble (France).
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- Fault Localization in Constraint Programs. In ICTAI'10 presentation conference, 27 Oct. 2010, at Arras (France).
- A Framework for the Automatic Correction of Constraint Programs. In ICST'11 presentation conference, 24 Mar. 2011, at Berlin (Germany).
- CPTTEST: A framework for the automatic fault detection, localization and correction of constraint programs. In CSTVA'11 tool demonstration, 25 Mar. 2011, at Berlin (Germany).

Tools & Softwares

SAT I implements a BESS approach referred to as Bandit Ensemble for parallel SAT Solving. This approach is implemented and tested on top of the ManySAT parallel SAT solver which won the parallel track of the 2008 SAT-Race¹. ManySAT uses a portfolio philosophy which lets several sequential CDCLs.

CP I am the developer of CPTTEST tool, a first testing tool for constraint programs. CPTTEST includes a complete OPL (Optimization Programming Language) parser and a backend process that produces dedicated OPL programs as output that must be solved to detect, localize and correct faults. The underlying constraint solver of CPTTEST is based on ILOG CP Optimizer 2.3. The tool and some results on well-known problems are available online at <http://www.irisa.fr/celtique/lazaar/CPTTEST>. Source-code registered to the APP.

¹<http://baldur.iti.uka.de/sat-race-2008/>

Publications

Journal articles

Nadjib Lazaar ,Arnaud Gotlieb ,Yahia Lebbah. **A CP framework for testing CP**. Constraints Journal, March 2012, Springer Netherlands.

International Conference articles

Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. **A framework for the automatic correction of constraint programs**. In Proc. of the 2011 IEEE International Conference on Software Testing, Verification and Validation, ICST'11, Mar. 2011, Berlin (Germany).

Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. **Fault localization in constraint programs**. In Proc. of the 2010 IEEE International Conference on Tools with Artificial Intelligence, ICTAI'10, Oct. 2010, Arras (France).

Nadjib Lazaar, Arnaud Gotlieb, and Yahia Lebbah. **On testing constraint programs**. In Proc. of Principles of Constraint Programming, CP'10, Sept. 2010, St-Andrews (Scotland).

International Workshop articles

Nadjib Lazaar. **CPTEST: A framework for the automatic fault detection, localization and correction of constraint**. In Proc. of the 3rd Workshop on Constraints in Software Testing, Verification, and Analysis programs (CSTVA'11), held within ICST'11, Mar. 2011, Berlin (Germany).

International Conference posters

Nadjib Lazaar ,Arnaud Gotlieb ,Yahia Lebbah. **Toward Constraint-Based Local Search for Automatic Test Data Generation**. In Poster presentation in ICSTW'08: Proceedings of the 2008 IEEE International Conference on Software Testing Verification and Validation Workshop , April 2008, Lillehammer (Norway).

National Conference articles

Nadjib Lazaar ,Arnaud Gotlieb ,Yahia Lebbah. **Vers une Théorie du Test des programmes à contraintes**. In Proc. of the 5th Journées Francophones de Programmation par Contraintes (JFPC'09). June 2009, Orléans (France).

COMPUTER SKILLS

Constraint programming languages. OPL, Comet, Zinc, Choco, Gecode, Sicstus Prolog.

(Parallel) SAT Solvers. MiniSAT, ManySAT.

Operating systems Linux, windows.

Development languages Java, C/C++, Lisp, Scheme, Html, SQL.

Development Platforms Sicstus Prolog, Eclipse CDT, Jbuilder, JCreator, CBuilder, IBM ILOG OPL Development Studio, Comet Hybrid Optimization Platform, MySQL, DrScheme, Adobe Macromedia(Flash, Dreamweaver, Fireworks...).

Formalism UML.

Others OpenMP, MPI, OpenSSL, Oracle.

LANGUAGE SKILLS

English: Well written and spoken. **French:** Fluent. **Arabic:** Native tongue.
