

Philippe ROLET

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SOFTWARE ENGINEER

EDUCATION

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|------------------|---|---------------------------------------|
| 2007-2010 | Ph. D. in Computer Science | Université de Paris-Sud, Paris |
| | Focus: artificial intelligence (in particular, statistical machine learning and optimization) | |
| | <i>Title: Elements for Learning and Optimizing Expensive Functions</i> | |
| | <i>Topics: Monte-Carlo methods, neural networks, support vector machines, statistical data mining methods, Markov decision processes, estimation of distribution algorithms.</i> | |
| 2006-2007 | M. Sc. in Advanced Computing | Imperial College, London |
| | Awarded with Distinction. | |
| | <i>Courses: machine learning, probabilistic inference, complexity, optimal decisions algorithms, model-checking, operations research, security protocols, modal logics, automated reasoning</i> | |
| 2003-2007 | Diplôme d'Ingénieur Polytechnicien | Ecole Polytechnique, Paris |
| | Leading French university in science and engineering (Grande Ecole). | |
| | <i>Diploma equivalent to Master of Engineering</i> | |
| | <i>Major in Computer Science. Minors: Mathematics, Statistics, Economics</i> | |

TECHNICAL SKILLS

Programming languages

Java 6 (Proficient), C (Familiar), C++, Python (Basics)
Scripting: BASH, Matlab, Octave, Ant

Web technologies

PHP, XHTML, CSS2, SQL, Javascript, Ajax

APIs

Java: Spring, Hibernate, Swing. PHP: Propel, Joomla Framework API.
Javascript: jQuery, dojo

Software

Eclipse Framework, Subversion, CVS, Openoffice

Operating systems

Linux (Debian 3, Ubuntu 8.04), Windows (98, XP)

PROFESSIONAL EXPERIENCE

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| 2008-2010 | Teaching Assistant in Computer Science | Orsay Tech. Inst., France |
| | Courses taught: Systems & Networks, Introduction to web development | |
| 2006 | Web Services Analyst | Infosys Tech. Ltd, Bangalore |
| | Part of the Software Engineering and Technology Department (3 months) | |
| | <i>Created a platform achieving data virtualization in XML and unification (using Xquery, Hibernate and Shared Data Objects)</i> | |
| | <i>Deployed the data services as web services on a Tomcat server</i> | |
| | <i>Co-authored « An approach to Automated Transaction Management in Distributed Databases »</i> | |

2006	Software Developer	vWorker.com, London
	Developed a multi-threaded proxy testing application (1 month) <i>Developed in Java (Swing for GUI). Buyer rating: 9/10</i>	
2005	Quality Controller	Alcatel SB, Shanghai
	Control of network boards' quality in Alcatel's largest plant in Asia (1 month)	
2003-2004	Second Lieutenant	French Army, Metz (France)
	Second Lieutenant in the 40 th Signal Brigade of the French ground forces (8 months) <i>Directed operations of a telecommunications unit of 20 personnels.</i> <i>This internship is required by Ecole Polytechnique to develop human relationships and leadership skills, as part of the curriculum for the engineering diploma.</i>	

SELECTED RESEARCH WORK

2010	Batch active learning	Work published in European Conference on Machine Learning 2010 (international audience, acceptance rate 18%) <i>Theoretical analysis of the appropriate number of cores for parallelization of active learning.</i> <i>Matlab experiments deployed on a grid to test the validity of the results</i>
2010	Adaptive noisy optimization	Work published in EvoSTAR (intl. audience, acc. rate 35%) and LION (intl. audience, acc. rate 40%) conferences <i>Optimizing functions with a noisy output: proofs of runtime lower and upper bounds</i> <i>Adaptive algorithm, performing the quickest optimization independently of the environment</i>
2009	Monte-Carlo active learning with billiards	Work published in European Conference on Machine Learning 2009 (intl. audience, acc. rate: 25%) <i>Modelization of optimal active learning as a Markov Decision Process</i> <i>Implementation of a general-purpose active learning algorithm in Java, approximating the optimal solution above using Monte-Carlo Tree Search and Billiards (BAAL algorithm)</i>
2007	Machine learning techniques for the game of Go	Master's Thesis at Imperial College Department of Computing (4 months) <i>Implemented an artificial player of Go in Java based on Monte-Carlo tree search algorithms</i>
2006	Bayesian extraction of concepts in natural language documents	Research project with Imperial College Department of Computing (4 months) <i>Used mixture of probability distributions for unsupervised text classification</i> <i>Implemented a lexical field recognition tool based on this technique (Java)</i>

LANGUAGES AND INTERESTS

Languages

French (mother tongue)
English (fluent, internet TOEFL: 108/120)
German and Chinese (basics)

Interests

Web development:
www.culturefoot.fr (soccer-related games website)
www.epinat.com/pepere (photo gallery)
Other: Judo (brown belt), IT news, Go (8 kyu)