

# BESSE Camille

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## Education

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### Ph.D. in Computer Science

2005/2010

Université Laval,  
Québec (Qc), Canada

### M. Sc. Artificial Intelligence

2004/2005

Equivalence Qc: *Master with thesis*

Université Toulouse III,  
France

### M. Sc. Intelligent Systems

2003/2004

Equivalence Qc: *Master with Intern & Report*

Université Toulouse III,  
France

### B. Sc. Intelligent Systems

2002/2003

Equivalence Qc: *Bachelor of Engineering*

Université Toulouse III,  
France

## Professional Teaching Experience

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### Teacher

2011/–

*Cegep Ste-Foy*

- Algorithmic I (PseudoCode & Python)
- Algorithmic and Programming II (OOD & C++\ C# programming)
- Programming for administration (C# & ASP.Net)
- Object Oriented Programming (OOP & Java)
- Internships coordinator & Synthesis Project Manager

### Lecturer

2013

*Université Laval*

- *Introduction to programming* IFT-1004 (Python & C)

### Teaching Assistant

2005/2011

*Université Laval*

- Teaching Assistant for *Algorithm Design and Analysis*
- Teaching Assistant for *Maths for Computer Scientists*
- Corrector for *Computer Science for actuaries* : and *Theoretical Computer Science* :

### Salsa Teacher

2008/–

*Dos Con Dos*  
occasionally

- Young adults & adults
- Animating and giving dance courses following a given program
- Transmitting excitement and passion about the Dance

### Animator in "Centre de Vacances et de Loisirs"

1998/2005

1 month per year

- Young people from 6 to 18 y.o.
- Organizing, animating and managing of indoors and outdoors activities in collaboration with other animators
- Transmitting social and citizenship values to young people
- Quick adaptation and management of social, psychological and material issues
- Several places : Atlantic Coast, Pyrénées, Corse.

### Judo Assistant Teacher

1995/2005

*Club Municipal*  
*Ramonville St-Agne*  
3h/wk. during  
school term

- Young people from 4 to 14 y.o.
- Organizing, animating and managing of indoors and outdoors activities in collaboration with the teacher
- Transmitting moral values to young people

# Professional Research Experience

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## Research Assistant

2005/2012

*Université Laval*

- Post-doctoral internship on modelling international conflicts
- Doctoral dissertation intitled “Contraintes et Observabilité dans les processus décisionnels de Markov” (in french) ;
- M. Sc. students management
- Publication in peer-reviewed national and international conferences ([List](#)).

## Research Intern

2005 (10 months)

*Institut de Recherche  
en Informatique de  
Toulouse (IRIT)*

- Machine Learning applied to Biochemistry : Learning of molecular interactions in amino-acids ;
- Development of an adaptive algorithm in Java
- Publication in bioinformatics workshop ([Link](#)).

## Research Intern

2004 (5 months)

*Collecte Localisation  
Satellite (Filiale  
CNES)*

- Machine Learning applied to Marine Biology : Learning of Luth turtle migrations across the Atlantic Ocean ;
- Development and adaptation of an adaptive neural network algorithm in Java.

# Computer Science Knowledge

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Systems	Windows, Linux, Unix.
Languages	Java, Caml, Prolog, C/C++/C#, Python, ASP.Net, HTML, Php, SQL, OpenGL, V+ (Robotique Staübli).
Tools	Eclipse, Matlab, Visual Studio, Aphélon, Cognex.
Conception	UML, Réseaux de Petri, StateCharts, Markov Decision Processes, ...
Office Tools	L <sup>A</sup> T <sub>E</sub> X, Microsoft Office Suite, Open Office.

# Specific Knowledge

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Quantitative Methods	Combinatory, Probability Laws, Bayesian Inference, Decision Making, Statistical Inference, etc.
Maths for Robotics	Spectral and Linear Algebra, Matrix and Vector Geometry
Machine Learning	Reinforcement Learning, Supervised Learning, Gaussian Processes
Project Management	Planning, scheduling, organization, synthesis and document redaction
Languages	Technical English : Fluent, French : Mother tongue.

# Leisures

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Sport	Judo (Black Belt 1 <sup>st</sup> Dan), Salsa & Rueda de Casino ( <i>World Champions 2009, Miami</i> ), kites, sailing, diving.
Others	Novels, comics, role playing, video games.

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**References available on demand.**

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## Publications

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- 2012 Alireza Bakhtiari, Besse Camille, and Luc Lamontagne (2012). **Forecasting Conflicts using N-gram Models**. In *Proceedings of the 25th International FLAIRS Conference*, 2012.
- 2011 Alireza Bakhtiari, Besse Camille, and Luc Lamontagne (2011). **Forecasting Conflicts using N-gram Models**. In *Workshop on Computational Social Science and the Wisdom of Crowds, NIPS*, 2011.
- Patrick Dallaire, Besse Camille, and Chaib-draa Brahim (2010). **Learning Gaussian Process Models from Uncertain Data**. In *Journal of Neurocomputing*, 74(11) : 1945-1955, 2011.
- 2010 Besse Camille, and Chaib-draa Brahim (2010). **Quasi-Deterministic POMDPs and DecPOMDPs**. In *Proceedings of the 9th International Conference On Autonomous Agents and MultiAgents Systems (Short Paper)*, Toronto, Canada, 2010.
- Besse Camille, and Chaib-draa Brahim (2010). **Quasi-Deterministic POMDPs and DecPOMDPs**. In *Proceedings of the 5th International Workshop on Multiagent Sequential Decision Making*, Toronto, Canada, 2010.
- 2009 Besse Camille, and Chaib-draa Brahim (2009). **Quasi-Deterministic Partially Observable Markov Decision Processes**. In *Proceedings of the 16th International Conference On Neural Information Processing*, Bangkok, Thailand, 2009.
- Jean Samuel Marier, Besse Camille, and Chaib-draa Brahim (2009). **A Markov Model for Multiagent Patrolling in Continuous Time**. In *Proceedings of the 16th International Conference On Neural Information Processing*, Bangkok, Thailand, 2009.
- Patrick Dallaire, Besse Camille, and Chaib-draa Brahim (2009). **Learning Gaussian Process Models from Uncertain Data**. In *Proceedings of the 16th International Conference On Neural Information Processing*, Bangkok, Thailand, 2009.
- Patrick Dallaire, Besse Camille, Stéphane Ross et Chaib-draa Brahim (2009). **Bayesian Reinforcement Learning in POMDPs with Gaussian Processes**. In *Proceedings of the International Conference On Intelligent Robots and Systems*, USA, 2009.
- 2008 Besse Camille, et Chaib-draa Brahim. **Parallel Rollout for Online Solution of Dec-POMDP**. In *Proceedings of the 21st International FLAIRS Conference*, Miami, FL, 2008.
- 2007 Besse Camille, et Chaib-draa Brahim. **"An Efficient Model for Dynamic and Constrained Resource Allocation Problems"**. In *Proceedings of the 2nd Workshop on Constraint Satisfaction Techniques for Planning and Scheduling Problems*, Providence, RI, 2007.
- Besse Camille, and Chaib-draa Brahim. **A Markovian Model for Dynamic and Constrained Resource Allocation Problems**. In *Proceedings of the 22nd Conference on Advancement of Artificial Intelligence (AAAI'2007) – Student Abstract Track*, Vancouver, BC, 2007.
- Besse Camille, Plamondon Pierrick, Chaib-draa Brahim. **R-FRTDP : A Real-Time DP Algorithm with Tight Bounds for a Stochastic Resource Allocation Problem**. In *Proceedings of Canadian AI*, Montreal, QC, 2007.
- 2006 Besse Camille, Chaib-draa Brahim. **Allocation de ressources non-fiables dans un environnement stochastique**. *Technical Report DAMAS*, Université Laval, 2006.
- 2005 Besse-Patin Camille, Bernon Carole. **Conformation de biomolécules et apprentissage des interactions de van der Waals par un système multi-agent adaptatif**. In *Atelier "Apprentissage automatique et Bioinformatique"*, Plate-forme AFIA, Nice, France, 2005.