PATRICIA LYNN GILLETT-KAWAMOTO

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(To see the web version of this resume, go to http://www.littlekitune.org/resume/)

EDUCATION

PhD, Engineering Mathematics
Department of Mathematics and Industrial Engineering, Polytechnique Montréal
Expected graduation date: April 2016

Bmath, Honours Computational Mathematics, Economics Option
Faculty of Mathematics, University of Waterloo
Graduated 2010
Note: A year was spent on exchange at Kyoto University, Japan, taking courses in the Dept. of Informatics.

RESEARCH ASSISTANTSHIP (SUPERVISOR: MIGUEL ANJOS):

2010-present **Nonlinear optimization project:** Working to develop strong SDP relaxations of QPCCs (quadratic problems with complementarity constraints) and leverage them to develop better local and global solution methods for this class of problems.

Software project: Developing a suite of tools which enable a user to work with QPCCs and their SDP relaxations in Python while using test problem generators and solvers which are ordinarily spread across Matlab, AMPL, and GAMS, including an interface to NEOS so users can test their problems on a wide range of solvers they may not have licenses for. The project will be released as open source software.

PUBLICATIONS:

- J. Kawamoto, P. L. Gillett, “Frequency-based Constraint Relaxation for Private Query Processing in Cloud Databases,” Proc. of the 27th Annual IEEE Canadian Conference on Electrical and Computer Engineering, pp.1275-1280, Toronto, May 2014.
- J. Kawamoto, P. L. Gillett, J. Sakuma, プライベート問合せにおける問合せ頻度を用いた制約緩和手法 (Frequency-based Constraint Relaxation for Private Query), IPSJ Transactions on Databases, Vol.6, No.3, pp.50-60, June 2013 (in Japanese).

PRESENTATIONS:

- P. L. Gillett, M. F. Anjos, J. Judice, *Combining semidefinite relaxations and NLP solvers for improved feasible solutions of QPLCCs*, INFORMS, Philadelphia, Nov 2015
- P. L. Gillett, M. F. Anjos, J. Judice, *Combining semidefinite relaxations and NLP solvers for improved feasible solutions of QPLCCs*, CORS-INFORMS, Montreal, June 2015
- P. L. Gillett, M. F. Anjos, *Finding better solutions to nonconvex quadratic equilibrium problems using semidefinite programming*, Optimization Days, Montreal, May 2014.
- P. L. Gillett, M. F. Anjos, *Semidefinite programming approaches for a class of complementarity problems*, Optimization Days, Montreal, Quebec, May 2012.
- P. L. Gillett, M. F. Anjos, *Semidefinite programming approaches for a class of complementarity problems*, Meet a GERAD Researcher Seminar Series, Montreal, Quebec, March 2012.
- P. L. Gillett, M. F. Anjos, *Semidefinite programming approaches for complementarity problems*, Optimization Days, Montreal, Quebec, May 2011.

POSTER PRESENTATIONS:

- P. L. Gillett, M. F. Anjos, *A semidefinite programming approach for nonconvex quadratic optimization with complementarity constraints*, Women Optimize in the West, Calgary, Alberta, June 2013.
- P. L. Gillett, M. F. Anjos, *A semidefinite programming approach for nonconvex quadratic Optimization with complementarity constraints*, Polynomial Optimisation Workshop, Cambridge, UK, July 2013.

OTHER EXPERIENCES:

Sept 2015 **Workshop mentor, Data Insights with Python for Beginners**
Ladies Learning Code, Montreal Chapter

July 2015 **Workshop instructor, Introduction to Hydroponics**
Helios Makerspace, Montreal

ADDITIONAL TRAINING:

Online courses:

- Intro to Software Product Management (Coursera, certificate earned)
- Software Processes and Agile Practices (Coursera, certificate earned)
- Intro to Hadoop and MapReduce: How to Process Big Data (Udacity, not taken for credit)

Multi-day workshops:

May 9-12, 2012	GERAD Spring School on Cooperative Games in Operations Research, Montreal
June 12-13, 2013	Women Optimize in the West, Calgary
June 14-28, 2013	PIMS Summer School on Optimization, Calgary
July 15-19, 2013	Polynomial Optimisation Summer School and Workshop, Cambridge, UK
June 11-13, 2015	Paths, Pivots, and Practice: The Power of Optimization, Montreal

Other training:

- HTML/CSS *(Ladies Learning Code Montreal)*
- Git *(PyLadies, Montreal Python)*
- Raspberry Pi *(PyLadies)*
- Data Analysis in Python *(PyLadies)*
- Machine Learning and Data Analysis in Python *(GERAD)*
- LaTeX, JabRef *(GERAD)*