

# Benjamin M. Marlin

## Curriculum Vitae

**Email:** marlin@cs.toronto.edu

**Web:** www.cs.toronto.edu/~marlin/

### Academic Background

<b>PhD Degree</b> Jan 2004 – Apr 2008	<b>University of Toronto</b> Department: Computer Science Area: Machine Learning Supervisor: Richard Zemel CGPA: 3.93/4.0	10 King's College Road, Toronto, Ontario CANADA
<b>Master's Degree</b> Sept 2002 – Jan 2004	<b>University of Toronto</b> Department: Computer Science Area: Machine Learning Supervisor: Richard Zemel CGPA: 3.88/4.0	10 King's College Road, Toronto, Ontario CANADA
<b>Bachelor's Degree</b> Sept 1999 – June 2002	<b>McGill University</b> Majors: Math and Computer Science CGPA: 3.64/4.0 - Great Distinction	847 Sherbrooke St West, Montreal, Quebec CANADA
<b>CEGEP Degree</b> Sept 1997 – June 1999	<b>Champlain St-Lambert CEGEP</b> – Diploma of College Studies, Pure and Applied Science	900 Riverside Drv, St-Lambert, Quebec CANADA

### Research Publications

#### Theses:

- **PhD Thesis:** *Missing Data Problems in Machine Learning*. University of Toronto. Expected April 2008. Supervisor: Richard Zemel. Committee: Geoffrey Hinton, Sam Roweis, Brendan Frey. External Examiner: Zoubin Ghahramani, Cambridge.
- **Master's Thesis:** *Collaborative Filtering: A Machine Learning Perspective*. University of Toronto. 2004. Supervisor: Richard Zemel.

#### Refereed Journals:

- Benjamin M. Marlin and Godfried Toussaint. *Constructing Convex 3-Polytopes from Two Triangulations of a Polygon*. Computational Geometry: Theory and Applications. Volume 28, Issue 1, May 2004, Pages 41-47.

## **Research Publications (Continued)**

### **Refereed Conference Proceedings:**

- Benjamin M. Marlin, Richard S. Zemel, Sam Roweis, and Malcolm Slaney. Collaborative Filtering and the Missing at Random Assumption. 23rd Conference on Uncertainty in Artificial Intelligence (UAI'2007).
- Benjamin M. Marlin, Richard S. Zemel, and Sam T. Roweis. *Unsupervised Learning with Non-ignorable Missing Data*. Tenth International Workshop on Artificial Intelligence and Statistics (AISTATS'2005).
- Benjamin M. Marlin and Richard S. Zemel. *The Multiple Multiplicative Factor Model For Collaborative Filtering*. International Conference on Machine Learning (ICML'2004).
- Benjamin M. Marlin. *Modeling User Rating Profiles for Collaborative Filtering*. Neural Information Processing Systems (NIPS'2003).
- Craig Boutilier, Richard S. Zemel and Benjamin M. Marlin. *Active Collaborative Filtering*. Uncertainty in Artificial Intelligence (UAI'2003).

## **Talks and Presentations**

### **Invited Talks and Lectures:**

- *Missing Data and Applications*. Guest lecture for CSC2535 - Advanced Machine Learning. Instructors: Geoffrey Hinton and Richard Zemel. March 2008.
- *Collaborative Filtering and the Missing at Random Assumption*. Presented at Microsoft Research. Redmond, Washington. July 2007.

### **Contributed Talks:**

- *Collaborative Filtering and the Missing at Random Assumption*. Presented at Uncertainty in Artificial Intelligence. Vancouver British Columbia. July 2007.
- *The Multiple Multiplicative Factor Model For Collaborative Filtering*. Presented at the International Conference on Machine Learning. Banff Alberta. July 2004.

### **Poster Presentations:**

- *Online Music Recommendation and the Problem of Missing Ratings*. Presented at the Department of Computer Science Research in Action Showcase. University of Toronto. March 2008.
- *Unsupervised Learning with Non-Ignorable Missing Data*. Presented at the Workshop on Artificial Intelligence and Statistics. Barbados. January 2005.
- *Modeling User Rating Profiles for Collaborative Filtering*. Presented at Neural Information Processing Systems. Vancouver British Columbia. December 2003.

## ***Teaching Experience***

### **Teaching Assistant – University of Toronto, Computer Science Department**

- *Introduction to Machine Learning*. (Fall 2005). Grad level. Prof: S. Roweis.
- *Introduction to Machine Learning*. (Fall 2004). Grad level. Prof: S. Roweis.
- *Uncertainty and Learning*. (Winter 2004). *Mixed Grad/Undergrad*. Prof: S. Roweis.
- *Machine Learning and Data Mining*. (Fall 2003). Undergrad Level. Prof: R. Zemel.

## ***Professional Activities***

### **Conference and Workshop Program Committees:**

- KDD Netflix Cup and Workshop (KDD'2007, KDD'2008)
- Uncertainty in Artificial Intelligence (UAI'2005, UAI'2006)

### **Journal Reviewing:**

- IEEE Internet Computing
- Information Processing Letters
- Journal of Machine Learning Research

### **Conference Reviewing:**

- International Joint Conference on Artificial Intelligence (IJCAI'2005)
- International Conference on Computer Vision (ICCV'2005)

## ***Scholarships, Awards, and Honours:***

- **NSERC Canadian Graduate Scholarship: \$45,000/year.** May 2005 – May 2008.
- **Uncertainty in Artificial Intelligence Travel Scholarship.** July 2007.
- **Ontario Government Scholarship: \$25,000/year.** Declined. May 2005– April 2006.
- **Ontario Government Scholarship: \$25,000/year.** May 2003 – April 2005.
- **International Conference on Machine Learning Travel Scholarship.** July 2004.
- **Top Paper Award.** Canadian Conference on Computational Geometry. July 2002.

## ***Selected Work Experience:***

- **Yahoo! Research. Santa Clara, Ca. Full/Part Time June 2006 – May 2007.**  
Internship. Conducted research on collaborative filtering and recommender systems in conjunction with Yahoo! Music. Designed an interactive web-based survey application to collect a specialized collaborative filtering data set. Organized deployment of the application and collection of data.  
Supervisor: Malcolm Slaney, Senior Research Scientist

## ***Selected Work Experience (Continued):***

- **McGill University Mathematics Department. Part time. May 2000 – Aug 2002.**  
Unix systems administration, web site design, and web application development.  
Supervisor: Gregory LeBaron, Computer Coordinator.
- **Interquest Inc, St. Hubert, Que. Full time. June 1999 – Sept 1999.**  
Design and implementation of a new corporate web site. Management of Fox Television's *America's Most Wanted* website. Supervisors: Marc-Antoine Duhaime, Web/Graphic Designer, Interquest Inc.; and Steele Bennett, Web and Segment Producer, Fox Film Corporation.

## ***References:***

**Dr. Richard Zemel.** Master's and PhD Supervisor.

- Associate Professor, Department of Computer Science, University of Toronto.
- Email: zemel@cs.toronto.edu

**Dr. Sam Roweis.** PhD Committee Member.

- Associate Professor, Department of Computer Science, University of Toronto.
- Email: roweis@cs.toronto.edu

**Dr. Malcolm Slaney.** Former research supervisor.

- Senior Research Scientist, Yahoo! Research
- Email: malcolm@yahoo-inc.com

**Mr. Gregory LeBaron.** Former work supervisor.

- Computer Systems Administrator, Department of Mathematics and Statistics, McGill University.
- Email: lebaron@math.mcgill.ca