

EDITH LAW · CURRICULUM VITAE

CONTACT INFORMATION	Machine Learning Department Carnegie Mellon University 5000 Forbes Ave, Pittsburgh PA 15217 Email: edith@cmu.edu Web: http://www.cs.cmu.edu/~elaw
RESEARCH INTERESTS	Human Computation, Machine Learning, Human-Computer Interaction, Social Computing, Games with a Purpose, Information Retrieval, Computational Sustainability
EDUCATION	Carnegie Mellon University , Pittsburgh, PA Ph.D. candidate in Machine Learning, Expected August 2012 Advisors: Luis von Ahn and Tom Mitchell McGill University , Montreal, Quebec M.Sc. in Computer Science, 2005 Advisor: Doina Precup University of British Columbia , Vancouver, BC B.Sc. in Computer Science, 2000 Advisor: Maria Klawe
HONOURS AND AWARDS	Harvard CRCS Postdoctoral Fellowship, 2012 CHI Best Paper Honorable Mention, 2012 FQRNT Postdoctoral Fellowship, 2012-2014 - Declined Microsoft Graduate Research Fellowship, 2009-2010 CHI Best Paper Honorable Mention, 2009 Robin Popplestone Fellowship, UMass Amherst (\$2500) - Declined NSERC Postgraduate Scholarship PGSD3 2006-2009 (\$63000) - Declined
PUBLICATIONS	<u>Books</u> E. Law and L. von Ahn. <i>Human Computation</i> . Morgan & Claypool Synthesis Lectures on Artificial Intelligence and Machine Learning, edited by Ron Brachman, Tom Dietterich and William Cohen, June 2011. <u>Book Chapters</u> E. Law . “Human Computation for Music Classification.” In <i>Music Data Mining</i> , edited by T. Li, M. Ogihara and G. Tzanetakis. CRC Press/Chapman Hall, 2011. <u>Conference Papers</u> H. Zhang, E. Law , K. Gajos, E. Horvitz, R. C. Miller, and D. Parkes. “Human Computation Tasks with Global Constraints: A Case Study.” In CHI 2012. (Best Paper Honorable Mention) E. Law and H. Zhang. “Towards Large-Scale Collaborative Planning: Answering High-Level Search Queries Using Human Computation.” In AAI 2011. E. Law , B. Settles and T. Mitchell. “Learning to Tag using Noisy Labels.” In ECML 2010. E. Law , K. West, M. Mandel, M. Bay and S. Downie. “Evaluation of Algorithms Using Games: The Case of Music Tagging.” In ISMIR 2009. E. Law and L. von Ahn. “Input-agreement: A New Mechanism for Data Collection using Human Computation Games.” In CHI 2009. (Best Paper Honorable Mention)

Refereed Workshop, Poster, and Short Papers

E. Law, B. Settles, A. Snook, H. Surana, L. von Ahn and T. Mitchell. “Human Computation for Attribute and Attribute Value Acquisition.” In CVPR Workshop on Fine-Grained Visual Categorization 2011.

E. Law, P. Bennett, and E. Horvitz. “The Effects of Choice in Routing Relevance Judgments.” In SIGIR 2011.

J. Betteridge, A. Carlson, S. Hong, E. Hruschka Jr., **E. Law**, T. Mitchell and S. Wang. “Towards Never Ending Language Learning.” In AAAI Spring Symposium on Learning by Reading and Learning to Read 2009.

E. Law, L. von Ahn and T. Mitchell. “Search Wars: A Game for Improving Web Search.” In HCOMP 2009.

E. Law, A. Mityagin & M. Chickering. “Intentions: A Game for Classifying Search Query Intent.” In CHI 2009 Work-in-Progress.

E. Law “The Problem of Accuracy as An Evaluation Criterion.” In ICML Workshop on Evaluation Methods for Machine Learning 2008.

E. Law, L. von Ahn, R. Dannenberg and M. Crawford. “TagATune: a Game for Sound and Music Annotation.” In ISMIR 2007.

RESEARCH EXPERIENCE

Microsoft Research, Redmond, WA. Summer 2010.

Worked with Eric Horvitz and Paul Bennett on several projects related to human computation, specifically on task routing for relevance judgment, peer routing and large-scale collaborative planning.

Microsoft Live Labs, Bellevue, WA. Summer 2008.

Worked with Max Chickering and Anton Mityagin on developing a human computation game toolkit, and designing games for collecting data on Web search intent.

National Research Council of Canada, Ottawa, Canada. Summer 1999.

Worked with John Meech on an ontology-driven system that automatically translates messages between multiple communication formats.

FUNDING

Worked extensively with Luis von Ahn and Tom Mitchell on a successful NSF grant (Social-Computational System SoCS nsf09559) proposal titled “Effectively Leveraging Contributions in Human Computational Systems.” Total \$737,500 granted for 3 years.

TALKS

“Human Computation: Core Research Questions and State of the Arts”
AAAI tutorial, August 7 2011

“Human Computation: Research Questions and Opportunities”

University of Toronto, September 28 2011

Caltech, May 11 2011

University of California at San Diego, May 10 2011

Simon Fraser University, May 9 2011

University of Washington, May 6 2011

University of British Columbia, May 4 2011

“Towards Large-Scale Collaborative Planning Using Humans and Machines”
Carnegie Mellon University, CrowdSourcing Lunch, Nov 16 2011

ADVISING Aaron Snook, Undergraduate Research Project “Games With A Purpose.” Summer 2010.

TEACHING EXPERIENCE Teaching assistant, “Computer Music Systems and Information Processing” (15-323) with Prof. Roger Dannenberg, Spring 2012, Carnegie Mellon University.

Teaching assistant, “Science of the Web” (15-396) with Prof. Luis Von Ahn, Fall 2008, Carnegie Mellon University.

Teaching assistant, “AI and Probabilistic Reasoning” (COMP 526) with Prof. Doina Precup, Spring 2005, McGill University.

Teaching assistant, “Artificial Intelligence I” (COMP 424) with Prof. Doina Precup, Fall 2004, McGill University.

Teaching assistant, “Introduction to Computer Science I” (CPSC 124) with Prof. Patrice Belleville, Spring 1999, University of British Columbia.

Participant, Eberly Center Documentation of Teaching Development Program, 2006-present
Participated in 10 teaching seminars, two videotaped teaching observations, a course and syllabus design session, and a pedagogy project exploring some aspects of teaching.

PROFESSIONAL SERVICE

Co-Organizer

4rd Human Computation Workshop, AAAI 2012
3rd Human Computation Workshop, AAAI 2011
1st Human Computation Workshop, KDD 2009
OURCS Conference, 2007.

Program Committee

AAAI Special Track on Computational Sustainability and AI, AAAI 2012
Spring Symposium for Wisdom of the Crowd, AAAI 2012
Workshop on Computational Social Science and the Wisdom of the Crowds, NIPS 2011
3rd Crowdsourcing Workshop for Information Retrieval, SIGIR 2011
Workshop on Computational Social Science and the Wisdom of the Crowds, NIPS 2010
2nd Human Computation Workshop, KDD 2010
IUI, 2011
ICWSM, 2010

Reviewer

Journal of Information Retrieval Special Issue on Crowdsourcing 2011
EURASIP Journal on Audio, Speech and Music Processing 2011
UIST 2011
SIGCHI 2009, 2010, 2011
NIPS, 2011
CSCW, 2012

Other

Education Review Committee, CMU Machine Learning Department, 2007
Selection Committee, CMU Ryan Award for Meritorious Teaching
Advisor, Cornell Lab of Ornithology NSF-Funded “CrowdID” Citizen Science Project
Advisory Board, Penn State University NSF IGERT proposal on “Big Data Social Science”

TECHNICAL
EXPERIENCE

Ubisoft Entertainment Inc, Montreal, QC. 2005-2006.

Designed and implemented the need simulation, navigation and steering system for non-player characters for the award-winning next-gen (XBox 360 / PlayStation 3) console game, Assassin's Creed.

IBM E-business Innovation Center, Vancouver, BC. 2000-2003.

Developed web applications, including e-commerce websites, clinical information systems, content management systems and education portals.

Sony, Tokyo, Japan. 1998.

Developed and integrated inverse kinematics algorithms into a VRML authoring tool. Presented research in written and spoken Japanese.

REFERENCES

Luis von Ahn

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Carnegie Mellon University
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Tom Mitchell

E. Fredkin University Professor
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Eric Horvitz

Distinguished Scientist
Adaptive Systems and Interaction Group
Microsoft Research Redmond
1 Microsoft Way, Redmond, WA 98004
Email: horvitz@microsoft.com

Other References Available Upon Request