

James R. Wright

Microsoft Research
7th Floor, 641 Avenue of the Americas
New York, NY, 10011, USA
jrwright@microsoft.com

Education

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| 2010–2016 | Doctor of Philosophy (Computer Science)
Dissertation: Modeling Human Behavior in Strategic Settings
ACM SIGecom Doctoral Dissertation Award (Honorable Mention)
University of British Columbia, Canada |
| 2007–2010 | Master of Science (Computer Science)
Thesis: Beyond Equilibrium: Predicting Human Behaviour in Normal Form Games
University of British Columbia, Canada |
| 1995–2000 | Bachelor of Science (Computing Science)
Simon Fraser University, Canada |

Research Interests

My primary research interest is in using data-driven machine learning models to predict human strategic behaviour; that is, behaviour in interactions where each participant's rewards depend partially on the actions of other participants. My long-term research agenda is to build a general theory for optimally designing algorithms for mediating interactions involving humans or other realistically bounded agents rather than idealized, perfectly rational game theoretic agents.

Publications

Competitive Peer-Reviewed Conferences

- 1. Deep Learning for Human Strategic Modeling.**
Jason Hartford, James R. Wright, and Kevin Leyton-Brown.
NIPS 2016: Thirtieth Annual Conference on Neural Information Processing Systems, 2016.
Oral presentation.
- 2. Level-0 Meta-Models for Predicting Human Behavior in Games.**
James R. Wright and Kevin Leyton-Brown.
EC-14: ACM Conference on Economics and Computation, pages 857–874, 2014.
- 3. Behavioral Game-Theoretic Models: A Bayesian Framework For Parameter Analysis.**
James R. Wright and Kevin Leyton-Brown.
AAMAS-2012: International Conference on Autonomous Agents and Multiagent Systems, pages 921–928, 2012.
Best student paper (runner up).

4. **Beyond Equilibrium: Predicting Human Behavior in Normal Form Games.**
James R. Wright and Kevin Leyton-Brown.
AAAI-10: AAI Conference on Artificial Intelligence, pages 901–907, 2010.

Under Submission

1. **Models of Level-0 Behavior for Predicting Human Behavior in Games.**
James R. Wright and Kevin Leyton-Brown.
Under review by *Journal of Artificial Intelligence Research*.
(supersedes Wright & Leyton-Brown [2014])
2. **Incentivizing Evaluation via Limited Access to Ground Truth:
Peer-Prediction Makes Things Worse.**
Xi Alice Gao, James R. Wright, and Kevin Leyton-Brown.
Under review by *Artificial Intelligence Journal*.
(supersedes Gao, Wright, and Leyton-Brown [2016])
3. **Predicting Human Behavior in Unrepeated, Simultaneous-Move Games.**
James R. Wright and Kevin Leyton-Brown.
Requested revisions under review by *Games and Economic Behavior*.
(supersedes Wright & Leyton-Brown [2010, 2012])

Other Venues

1. **Incentivizing Evaluation via Limited Access to Ground Truth:
Peer-Prediction Makes Things Worse.**
Xi Alice Gao, James R. Wright, and Kevin Leyton-Brown.
Workshop on Algorithmic Game Theory and Data Science at ACM Conference on Economics and Computation, 2016.
2. **Mechanical TA: Partially Automated High-Stakes Peer Grading.**
James R. Wright, Chris Thornton, and Kevin Leyton-Brown.
SIGCSE-15: ACM Technical Symposium on Computer Science Education,
pages 96–101, 2015.
3. **Linear Solvers for Nonlinear Games: Using Pivoting Algorithms to Find Nash
Equilibria in n -Player Games.**
James R. Wright, Albert Xin Jiang, and Kevin Leyton-Brown.
SIGecom Exchanges, volume 10, number 1, pages 9–12, 2011.

Invited Talks

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| Simons | Endogenous Cognitive Hierarchy.
At <i>Simons Institute Survey Seminar</i> ,
Berkeley, California. 2015. |
| UBC | Guest lecture for CMPT 430.
University of British Columbia. January, 2015. |
| SIGCSE-15 | Mechanical TA: Partially Automated High-Stakes Peer Grading. |

- At *ACM Technical Symposium on Computer Science Education*,
Kansas City, Missouri. 2015.
- UBC **Guest lecture for CMPT 532L.**
University of British Columbia. January, 2014.
- SFI **Evaluating Set-Valued Predictions.**
At *Combining Information Theory and Game Theory*,
Santa Fe Institute, New Mexico. 2012.
- AAMAS-2012 **Behavioral Game-Theoretic Models: A Bayesian Framework
For Parameter Analysis.**
At *11th International Conference on Autonomous Agents and Multi-
agent Systems (AAMAS 2012)*, Valencia, Spain. 2012.
- GAMES-2012 **Beyond Equilibrium: Predicting Human Behavior in Normal
Form Games.**
At *4th World Congress of the Game Theory Society (GAMES-2012)*,
Istanbul, Turkey. 2012.
- UBC **Guest lecture for PSYC 417A.**
University of British Columbia. February 2012.
- LANL **Beyond Equilibrium: Predicting Human Behavior in Normal
Form Games.**
At *Design and Control of Systems of Goal-Directed Agents; From Game
Theory to Game Engineering*,
Los Alamos National Laboratory, New Mexico. 2010.
- AAAI-10 **Beyond Equilibrium: Predicting Human Behavior in Normal
Form Games.**
At *Twenty-Fourth AAAI Conference on Artificial Intelligence*,
Atlanta, Georgia. 2010.
- Google **Beyond Equilibrium: Predicting Human Behavior in Normal
Form Games.**
At Google,
Mountain View, California. 2010.
- BQGT **Beyond Equilibrium: Predicting Human Behavior in Normal
Form Games.**
At *Behavioral and Quantitative Game Theory Conference on Future
Directions*,
Newport Beach, California. 2010.
- Awards**
- 2017 **ACM SIGecom Doctoral Dissertation Award (Honorable Men-
tion)**
ACM Special Interest Group on E-commerce
- 2010–2013 **UGF: University Graduate Fellowship**
University of British Columbia, Canada

- Declined in 2010–2012 to hold NSERC
(*Total value: \$80,000*)
- 2010–2012 **NSERC Canada Graduate Scholarship (Ph.D.)**
Natural Sciences and Engineering Research Council of Canada
(*Total value: \$105,000*)
- 2008–2009 **NSERC Canada Graduate Scholarship (M.Sc.)**
Natural Sciences and Engineering Research Council of Canada
(*Total value: \$17,500*)
- 2000 **Computing Science Graduation Award**
(for top graduating student in department)
Simon Fraser University, Canada
(*Total value: \$600*)
- 1996 and 1999 **Honour Roll**
Simon Fraser University, Canada
- 1996–2000 **Open Scholarship**
Simon Fraser University, Canada
(*Full tuition support*)
- 1995–1996 **Taduesz Specht Memorial Scholarship in Science**
Simon Fraser University, Canada
(*Total value: \$3000*)

Service

- 2015–ongoing Member: NSF PI Forum on Peer Assessment
- 2014–2015 Student representative: Faculty Recruiting Committee
- 2010 Volunteer: AAAI Conference on Artificial Intelligence

Editorial Activity

- 2016 Program Committee, Thirty-First AAAI Conference on Artificial Intelligence.
- 2016 Reviewer, *Econometrica*.
- 2016 Reviewer, *Journal of Artificial Intelligence Research*.
- 2016 Reviewer, 12th Conference on Web and Internet Economics.
- 2016 Reviewer, *Artificial Intelligence Journal*.
- 2016 Reviewer, *Journal of Economic Behavior and Organization*.
- 2015 Reviewer, *Games and Economic Behavior*.
- 2015 Reviewer, Thirtieth AAAI Conference on Artificial Intelligence.
- 2015 Reviewer, *Journal of Economic Behavior and Organization*.
- 2015 Reviewer, *ACM Transactions on Economics and Computation*.
- 2013 Reviewer, *Journal of Machine Learning Research*.

2012	Reviewer, Games and Economic Behavior.
2011	Reviewer, Artificial Intelligence Journal.
2011	Reviewer, International Joint Conferences on Artificial Intelligence.
2011	Reviewer, Twenty-Fifth AAAI Conference on Artificial Intelligence.
2010	Reviewer, Journal of Autonomous Agents and Multiagent Systems.
2009	Reviewer, ACM Conference on Electronic Commerce.
2009	External Reviewer, International Joint Conferences on Artificial Intelligence.

Research Employment

2016–2018	Postdoctoral Researcher Microsoft Research, New York City, USA
2015	Visiting Graduate Student One of 16 graduate students selected to participate in the Economics and Computation Program, along with 45 faculty. Simons Institute, University of California, Berkeley, California
2008–2016	Graduate Researcher Advisor: Kevin Leyton-Brown University of British Columbia, Vancouver, Canada
2000	Undergraduate Research Assistant Supervisor: Binay Bhattacharya Simon Fraser University, Burnaby, Canada
1998	Undergraduate Research Assistant Supervisors: Jim Delgrande and Arvind Gupta Simon Fraser University, Burnaby, Canada

Teaching

My duties as an instructional assistant for the various massively open online courses listed below included constructing new content (problem sets and exams), cross-checking new video comment for slide typos and misstatements, and monitoring and responding to student questions in online forums.

As an instructional assistant for Computers and Society, I led the design and implementation effort of the Mechanical TA peer grading system. I also constructed exams, and assisted with curriculum development.

As a teaching assistant for Multiagent Systems, I constructed quizzes, exams, and assignments, and assisted in the day-to-day operation of the class.

2014	Instructional Assistant, Coursera/University of British Columbia Game Theory II (Massively Open Online Course), Kevin Leyton-Brown.
2014	Instructional Assistant, Coursera/University of British Columbia Game Theory (Massively Open Online Course), Kevin Leyton-Brown.

- 2014 Teaching Assistant, University of British Columbia
Multiagent Systems (graduates), Kevin Leyton-Brown.
- 2014 Instructional Assistant, University of British Columbia
Computers and Society (advanced undergraduates), Kevin Leyton-Brown.
- 2013 Instructional Assistant, University of British Columbia
Game Theory II (Massively Open Online Course), Kevin Leyton-Brown.
- 2013 (twice) Instructional Assistant, Coursera/University of British Columbia
Game Theory (Massively Open Online Course), Kevin Leyton-Brown.
- 2013 Teaching Assistant, University of British Columbia
Multiagent Systems (graduates), Kevin Leyton-Brown.
- 2013 Instructional Assistant, University of British Columbia
Computers and Society (advanced undergraduates), Kevin Leyton-Brown.
- 2009 Teaching Assistant, University of British Columbia
Multiagent Systems (graduates), Kevin Leyton-Brown.
- 2008 Teaching Assistant, University of British Columbia
Computers and Society (advanced undergraduates), Kurt Eiselt.
- 2007 Teaching Assistant, University of British Columbia
Advanced Software Engineering (advanced undergraduates), Eric Wohlstadter.

Last update: June 16, 2017