Jason G. Rhinelander

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Contact Information

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Research Interests

Agent-based modelling; computational economics; intellectual property; microeconomics; law and economics; behavioural economics.

Education

Ph.D., Economics, Queen's University, Kingston, ON — 2011–present
(expected completion: 2018).

M.A., Economics, Queen's University — 2010–2012

B.A., Economics (Hon.), Computer Science (Maj.), Mathematics (Min.), Mount Allison University, Sackville, NB — 2006–2010

Research Papers

Inequality and Education: an agent-based approach *(working paper)* — 2018

Creativity amid piracy: an agent-based model of the incentives to create in a piratic digital world *(working paper)* — 2017 2018

Computationally efficient sampling from truncated multivariate normal and t distributions *(working paper)* — 2016

Voting simulation: an Eris application — 2013

Critique and reimplementation of *Plümper and Martin, "Multi-party competition: A computational model with abstention and memory* — 2013

Usage- versus cost-based pricing: lessons from the CRTC's Internet regulations. *Master's essay, Queen's University* — 2012

Presentations & Workshops

"Creativity under piracy: an agent-based modelling approach"
Canadian Economics Association Annual Conference, Toronto, ON — 2016
Institute for New Economic Thinking, Complexity Workshop, Toronto, ON — 2016
Queen's Microeconomics Workshop — 2016

Institute for New Economic Thinking, Young Scholars Initiative workshop — 2014

"Creativity Amid Piracy", Atlantic Canada Economics Association Meetings — 2009

Research Software

Eris library for agent-based economic modelling. — 2013–
Open-source C++ library for modelling and simulating complex economic models.
https://git.imaginary.ca/eris/eris

Creativity and piracy modelling software. — 2014–
Eris-based software implementation of "Creativity amid piracy: an agent-based model of the incentives to create in a piratic digital world" working paper.
https://git.imaginary.ca/eris/creativity

pyeris, a Python interface to Eris. — 2016–
https://git.imaginary.ca/eris/pyeris

Core developer of "pybind11: Seamless operability between C++11 and Python" — 2016–
https://github.com/pybind/pybind11

Contributed Ziggurat-algorithm implementation of Exponential random number generator and enhanced Ziggurat normal random number generator to the Boost C++ software library. (Included as of Boost 1.62.0). https://github.com/boostorg/random/pull/23 — 2016

fracdist unit roots and cointegration critical value calculator. 2014
C++ reimplementation of Fortran companion software to James G. MacKinnon and Morten Ø. Nielsen, "Numerical Distribution Functions of Fractional Unit Root and Cointegration Tests," Journal of Applied Econometrics, Vol. 29, No. 1, 2014, pp. 161–171. `https://git.imaginary.ca/jagerman/fracdist`

Voting simulation software. 2013
Eris-based voting model software implementation of "Voting simulation: an Eris application" working paper. `https://git.imaginary.ca/eris/voting`

EASIK v2.0, an Entity Attribute sketch and database implementation. 2008–2009
(Contributor). Summer undergraduate Computer Science research project. `http://www.mta.ca/~rrosebru/project/Easik`

Awards and Distinctions

Ontario Graduate Scholarship 2011, 2012, 2014

E.G. Bauman Fellowship 2013

Queen's University nomination for SSHRC Doctoral Award 2011, 2013

Duncan & Urlla Carmichael Graduate Fellowship 2010

Governor General's Academic Medal (Silver) 2010

Harold W. Simpson Memorial Prize, Mount Allison University 2010

Mount Allison University Alumni Association Academic Achievement Award 2010

Best Student Paper, Atlantic Canada Economics Association Conference, Saint John, NB, Canada 2009

Association for Computing Machinery, International Collegiate Programming Contest participant. *(2^{nd}-place Atlantic Canada; 10^{th}-place northeast North America)* 2009

Marjorie Young Bell Fellowship for summer undergraduate research, Economics Department, Mount Allison University; supervisor Dr. Stephen Law 2009

Petrocan Summer Undergraduate Award, Mathematics and Computer Science Department, Mount Allison University; supervisor Dr. Robert Rosebrugh 2008

Dean's List, Mount Allison University 2007–2010

University Scholarship, Mount Allison University 2008–2010

Software Skills

Extensive programming experience:
C++, Python, C, GNU R, Perl, Java, SQL, HTML, CSS, JavaScript, Shell scripting.
Moderate programming experience:
MATLAB, PHP, Ox.
Statistical analysis:
gretl, R, STATA.
Operating systems:
GNU/Linux, Mac OS X, Windows.

Teaching Experience

Lecturer, University of New Brunswick, Economics Department:
Advanced Macroeconomics (ECON 4023; 4^{th}-year undergraduate) Winter 2018
Economic Theory I: Microeconomics (ECON 3013; 3^{rd}-year undergraduate) Winter 2018
Lecturer, St. Thomas University, Economics Department:
Microeconomic Theory I (ECON 2103; 2^{nd}-year undergraduate) Fall 2017
Instructor (Teaching Fellow), Queen's University, Economics Department:
Introductory Statistics (ECON 250; 2^{nd}-year undergraduate) Fall 2016
Introductory Statistics (ECON 250) Winter 2015
Introductory Statistics (ECON 250) Fall 2013

Teaching Assistant, Queen's University, Economics Department:

Quantitative Methods (ECON 852; M.A. econometrics), Dr. Morten Nielsen	Fall 2014
Economic Analysis of Law (ECON 848; M.A.), Dr. Roger Ware	Winter 2014
Industrial Organization & Policy (ECON 445; 4th-year), Dr. Roger Ware	Winter 2014
Econometrics II (ECON 851; Ph.D.), Dr. Morten Nielsen	Winter 2013
Econometrics I, (ECON 850; Ph.D.), Dr. James MacKinnon	Fall 2012
Microeconomics I (ECON 811; Ph.D.), Dr. James Bergin	Fall 2012
Mathematical Economics (ECON 255; 2nd-year) Dr. Jan Zabojnik	Winter 2012
Microeconomic Theory II (ECON 310; 3rd-year), Dr. Sumon Majumdar	Fall 2011
Microeconomic Theory I (ECON 212; 2nd-year), Prof. Arthur Stewart	2010–2011

Teaching Assistant, Mount Allison University:

Introductory Micro/macroeconomics (ECON 1001/1011), Drs. Stephen Law and Frank Strain	2008–2010
Data Structures and Algorithms I (COMP 2611; 2nd-year core Computer Science course), Dr. Liam Keliher	Fall 2007, Fall 2009
Data Structures and Algorithms II (COMP 2631; 2nd-year core Computer Science course), Dr. Liam Keliher	Winter 2008, Winter 2009

Professional Activities

Queen's University Copyright Working Group, graduate student representative	2012–2017
Queen's Community Housing Board, John Orr Tower representative	2010–2013

Professional Experience

Lead Product Developer, Gossamer Threads, Inc., Vancouver, BC 2003–2006
`http://www.gossamer-threads.com`.

- Head of development team for all product software development.
- Maintenance of existing products and software libraries
- Development of new products.
- Developed major new versions of Gossamer Threads' main software products, including a major redesign of all main products.
- Assisted in the initial development and launch of Gossamer Threads' web hosting division (now GT.net).

Web Application Developer, Gossamer Threads, Inc. 2000–2003

- Designed, developed, and launched Gossamer Forum, an advanced web-based forum application sold to webmasters.
- Created and maintained various components of other Gossamer Threads products and shared underlying product libraries.

References

Dr. James Bergin
Department of Economics
Queen's University
Kingston, ON, K7L 3N6, Canada
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E-mail: berginj@econ.queensu.ca

Dr. Marie-Louise Vierø
Department of Economics
Queen's University
Kingston, ON, K7L 3N6, Canada
Phone: (613) 533-2292
E-mail: viero@econ.queensu.ca

Dr. James MacKinnon
Department of Economics
Queen's University
Kingston, ON, K7L 3N6, Canada
Phone: (613) 533-2293
E-mail: jgm@econ.queensu.ca

Dr. Gregor W. Smith *(teaching reference)*
Department of Economics
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E-mail: smithgw@econ.queensu.ca