

Jeffrey Hughes

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Skills Summary

- Advanced understanding of wide range of statistical modelling techniques, including: linear and non-linear regression models, multi-level models, structural equation models (SEM), factor analysis and principal components analysis (PCA), latent class analysis (LCA)
- In-depth experience with data analysis tools: R, SPSS, SAS, Mplus, Excel
- Knowledge of and experience with several programming languages and data technologies: R, Python, JavaScript, PHP, Git, SQL, Apache Spark, Hive, Impala
- Strong oral and written presentation skills developed through academic career

Work Experience

Instructor – Renison University College, Waterloo, ON September – December 2015

- Taught undergraduate course in basic statistics to second-year Social Development Studies students
- Clearly explained statistical concepts such as hypothesis testing, descriptive and inferential statistics, t-tests, correlation, linear regression, ANOVA, and chi-squared tests
- Overall evaluation of instructor by students at end of course was 4.5 out of 5

Web designer – Freelance June 2011 – April 2012

- Translated a colleague's Photoshop designs into HTML and JavaScript code
- Created custom Wordpress templates (PHP) and online shops for clients

Research assistant – Employment and Social Development Canada, Gatineau, QC January – April 2010

- Independently wrote internal report on impact of Internet technologies and barriers to access for persons with disabilities in Canada
- Analyzed disability-related data from Statistics Canada surveys to find key correlative factors influencing Internet use

Education

Ph.D., Social Psychology, University of Waterloo September 2013 – September 2017
M.A., Social Psychology, University of Waterloo September 2011 – August 2013
B.A. (Honours), Psychology & Business, University of Waterloo September 2006 – April 2011

During educational career:

- Gained in-depth experience in statistics and data sampling methodologies, including experimental and correlational designs
- Developed research projects both independently and collaboratively, with a focus on motivational processes, consumer decision-making, and attitude change toward social groups
- Provided assistance and advice as teaching assistant for courses on research design and statistics (both undergraduate and graduate-level), as well as courses in psychology
- Authored several research articles for publication in scholarly journals (available on request)
- Presented research numerous times at conferences and departmental meetings

Awards and Scholarships

Awards below granted on the basis of a research proposal, selected for academic merit.

- SSHRC Doctoral Scholarship, Government of Canada, \$20,000/year 2015-2017
- University of Waterloo President's Graduate Scholarship, \$10,000/year 2011, 2012, 2014-2017
- Ontario Graduate Scholarship, Government of Ontario, \$15,000/year 2012, 2014
- University of Waterloo Graduate Scholarship, \$6,000/year 2013
- SSHRC Master's Scholarship, Government of Canada, \$17,500/year 2011

Volunteer Experience

Steering committee member – PsyArXiv.com August 2016 – present

- As part of team, organize and oversee the development of the PsyArXiv preprint service for psychological research, committed to making research more open and accessible

Statistical consultant, statistics tutor – Freelance December 2015 – present

- Provide paid and unpaid statistical assistance to several graduate students and faculty at the University of Waterloo
- Topics have included structural equation modelling (SEM), analysis of variance (ANOVA), factor analysis, regression, multi-level models, and general help with learning and using R

Instructor, Learning R Workshop – University of Waterloo, Waterloo, ON December 2014

- Created and led a one-day workshop on using the R statistical program, oriented toward faculty and graduate students
- Covered R programming structures, common statistics functions and packages, use of RStudio

Activities and Interests

- Enjoy keeping up to date on new tools and technologies related to research, statistics, and web development
- Have authored two R packages (available on GitHub: <https://github.com/jeff-hughes>), and taken Coursera data science courses to gain understanding of Hadoop and machine learning
- Enjoy cooking delicious food, reading classic literature, and listening to podcasts