Rick Farouni | Curriculum Vitae

Department of Psychology, The Ohio State University

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Third-year PhD student in quantitative psychology with a master's degree in statistics. Strong background in mathematical modelling, multivariate statistics, and Bayesian statistics. Strong technical and scientific computing skills. Passionate about science, mathematics, and the open access movement in education and academia.

Education

Academic Qualifications

○ **The Ohio State University** — **Ohio, USA**
PhD in Quantitative Psychology — *2012–Now*
Advisor: Professor Robert Cudeck

○ **The Ohio State University** — **Ohio, USA**
Master's Degree in Statistics — *2012-2014*

○ **The Ohio State University** — **Ohio, USA**
Master's Degree in Quantitative Psychology — *2012-2014*

Thesis Project:*'Latent Variable Modelling of Categorical Item Responses in a Hierarchical Bayesian Framework'*

○ **The Pennsylvania State University** — **Pennsylvania, USA**
Bachelor's Degree in Psychology — *2011-2012*

Awards and Fellowships

○ **The Ohio State University**
University Fellowship — *2012-2013*

○ **The Ohio State University**
The Social and Behavioral Sciences Summer Fellowship — *2013*

Course Projects

○ **Multivariate Statistics** (STAT 7560): *'Retinotopic Mapping of the Human Visual Cortex Using Independent Component Analysis'*

○ **Advanced Computational Statistics** (STAT 7730): *'Bayesian Analysis of Noisy Images Using Markov Random Fields'*

○ **Statistical Consulting** (STAT 6750): *'Modelling Categorical Perception of Speech Sounds using Beta Regression'*

Experience

○ **The Ohio State University** — Ohio, USA
Graduate Teaching Associate — 2013–2015
Teaching Assistant for Psychology 2220: Data Analysis in Psychology

○ **Independent Instructor** — Moscow, Russia
Teacher of English and the Graduate Management Admission Test (GMAT) — 2001-2012

Computing and Language Skills

Programming and Software Skills

○ **Programming Languages:** Proficient in numerical and statistical computing languages such as **R** and **Matlab**. Strong command of probabilistic programming languages such as **Stan** and **Bugs**. Also basic ability with functional languages such as **Python**.

○ **Tools and Software:** Experience with a variety of tools such as LATEX ,Linux OS, Git distributed revision control systems such as Github. Basic knowledge in distributed cluster computing, and scalable machine learning analysis using the H2O big-data analytics platform.

Languages

○ **English:** Primary Language.
○ **Russian:** Professional Working Proficiency.
○ **Arabic :** Native Proficiency.
○ **Spanish:** Limited Working Proficiency.

Research Interests

○ **Quantitative**
  – Multivariate Statistics and Latent Variable Models
  – Hierarchical Bayesian Modelling
  – Nonparametric Bayesian Methods

○ **Methodological**
  – Multivariate Statistical Analysis of fMRI Activation Patterns
  – Mutlimodal Integration of Functional Neuroimaging Data (e.g.fMRI, EEG, MEG) in a generative Bayesian Hierarchical Model

○ **Substantive**
  – How information about the sensory environment becomes coded by neural activity in an increasingly abstract hierarchy of representations?
  – Invariant Visual Object Recognition