Postdoctoral Fellow, Max Planck Institute for Human Development, Berlin, Germany.

INDRAJEET PATIL

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Experience

- Postdoctoral Fellow, Max Planck Institute for Human Development, Germany, 2019-.
- Postdoctoral Fellow, Department of Psychology, Harvard University, USA, 2017-2019.
 - Designed a novel Reinforcement Learning paradigm to model human moral learning.
 - Conducted a meta-analysis to dissociate the role of empathic concern versus distress in altruism.
 - Created multiple R packages to analyze and visualize data.
- Ph.D. Researcher, Scuola Internazionale Superiore di Studi Avanzati (SISSA), Trieste, Italy, 2011-2015.
 - Collected and analyzed over a billion records of neuroimaging (both functional and anatomical) and psychophysiological (skin conductance) data to link human moral decision-making and brain function.
 - Created novel Virtual Reality paradigms to study human moral behavior.
 - Studied clinical deficits in autism, multiple sclerosis, and anxiety disorders.

Technical Skills

• Programming skills

Data analysis: R (advanced), MATLAB (intermediate), Python (beginner)

Web development: HTML/CSS (intermediate), JavaScript (intermediate)

Database management: SQL (intermediate)

Document preparation: RMarkdown (advanced), xaringan (advanced), IATEX (intermediate)

Miscellaneous: Git/GitHub, YAML

- Open-source software development (in R; published on CRAN; Total downloads: 137,226):
 - ggstatsplot (Downloads: 43,175, since April 2018): Informative data visualizations with statistical analyses.
 - groupedstats (Downloads: 32,254, since July 2018): Grouped statistical analyses.
 - broomExtra (Downloads: 32,414, since March 2019): Enhancements for working with regression models.
 - statsExpressions (Downloads: 14,999, since August 2019): Creates expressions with statistical details.
 - pairwiseComparisons (Downloads: 14,384, since August 2019): Multiple pairwise comparison tests.
 - Co-author on insight, parameters (downloads: > 500K)
- Techniques: text mining, machine learning, meta-analysis, logistic/linear regression, linear/ordinal mixed effects regression, clustering (k-means, hierarchical cluster analysis, linear discriminant analysis), k-nearest neighbor, bagging, random forests, support vector machines, dimensionality reduction (PCA, ICA), Reinforcement Learning, Bayesian statistics, cross validation, neural networks, naive Bayes classification, Structural Equation Modeling, path analysis
- Online data collection: Qualtrics, MTurk

Publications

• 13 first author, peer-reviewed publications

Citations: 459, h-index: 9, i10-index: 9, Open materials (13/13)

Selected media coverage: Time, The Huffington Post, Daily Mail, la Repubblica, etc.

Education

- Doctor of Philosophy (Neuroscience), SISSA, Trieste, Italy, 2011-2015 (summa cum laude).
- Master of Science (Physics), Department of Physics, University of Pune, India, 2008-2010.
- Bachelor of Science (Physics), Fergusson College, India, 2005-2008.

Other Skills

- Communication: Skilled at disseminating complex ideas to a range of audiences, including scientists and the general public (> 20 talks, published articles for newspapers).
- Advising/Project Management: Coordinated large teams of multi-national researchers across multiple neuroimaging studies across several years. Supervised and trained 7 students' undergraduate theses.