Joshua N. Pritikin

Education

2014–2016 **Ph.D. Psychology**, *University of Virginia*, Charlottesville, VA (advisers Steven Boker and Timo von Oertzen).

Topic: *Unbelievably fast estimation of nested multilevel structural equation models*

2011–2013 **M.A. Psychology**, *University of Virginia*, Charlottesville, VA (advisers Steven Boker, Karen Schmidt, and Timo von Oertzen).

Topic: *Item Factor Analysis: A primer and new open-source implementation*

2007–2009 **B.S. Psychology**, *University of Oregon*, Eugene, OR.

Awards and Honors

2014-2015 Developing Students for Leadership in Data-intensive Research and Innovation from The Jefferson Trust $20,000

2008-2009 Osher Reentry scholarship $4500

Publications

Falk, C. F. & Pritikin, J. N. (in press). Computer programming in quantitative analysis. In B. Frey (Ed.), *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation*. Thousand Oaks, CA: SAGE.

Pritikin, J. N. (2017). A comparison of parameter covariance estimation methods for item response models in an expectation-maximization framework. *Cogent Psychology*, *4*(1), 1279435. doi:10.1080/23311908.2017.1279435

Pritikin, J. N., Hunter, M. D., von Oertzen, T., Brick, T. R., & Boker, S. M. (2017). Many-level multilevel structural equation modeling: An efficient evaluation strategy. *Structural Equation Modeling: A Multidisciplinary Journal*, *24*(5), 684–698. doi:10.1080/10705511.2017.1293542

Pritikin, J. N., Rappaport, L. M., & Neale, M. C. (2017). Likelihood-based confidence intervals for a parameter with an upper or lower bound. *Structural Equation Modeling: A Multidisciplinary Journal*, *24*(3), 395–401. doi:10.1080/10705511.2016.1275969

Neale, M. C., Hunter, M. D., Pritikin, J. N., Zahery, M., Brick, T. R., Kirkpatrick, R., ... Boker, S. M. (2016). OpenMx 2.0: Extended structural equation and statistical modeling. *Psychometrika*, *81*(2), 535–549. doi:10.1007/s11336-014-9435-8

Pritikin, J. N. (2016). A computational note on the application of the Supplemented EM algorithm to item response models. *arXiv preprint arXiv:1605.00860*. arXiv: 1605.00860 [stat.CO]

Pritikin, J. N. & Schmidt, K. M. (2016). Model builder for Item Factor Analysis with OpenMx. *R Journal*, *8*(1), 182–203.

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Boker, S. M., Brick, T. R., Pritikin, J. N., Wang, Y., von Oertzen, T., Brown, D., ... Neale, M. C. (2015). Maintained individual data distributed likelihood estimation. *Multivariate Behavioral Research*, *50*(6), 706–720.

Kelly, G., Mobbs, S., Pritikin, J. N., Mayston, M., Mather, M., Rosenbaum, P., ... Forsyth, R. (2015). Gross motor function measure-66 trajectories in children recovering after severe acquired brain injury. *Developmental Medicine and Child Neurology*, *57*(3), 241–247. doi:10.1111/dmcn.12592

Pritikin, J. N. (2015). *Rpf: Response probability functions* [Computer software]. Version 0.51. R package version 0.51. Retrieved February 24, 2016, from https://CRAN.R-project.org/package=rpf

Pritikin, J. N., Hunter, M. D., & Boker, S. M. (2015). Modular open-source software for Item Factor Analysis. *Educational and Psychological Measurement*, *75*(3), 458–474. doi:10.1177/0013164414554615

Pritikin, J. N. & Schmidt, K. (2013). A self-report measure for familiarity with mental silence. In W. v. Moer, D. A. Çelik, & J. L. Hochheimer (Eds.), *Spirituality in the 21st century: Journeys beyond Entrenched Boundaries* (pp. 23–31). Oxford, United Kingdom: Inter-Disciplinary Press.

Pritikin, J. N. (2007). We ought to characterize dyadic prospects. In *International Conference on Affective Computing and Intelligent Interaction: Doctoral Consortium*. Lisbon, Portugal.

In Process

Pritikin, J. N., Driver, C., Bharadwaj, V., Schmidt, K. M., Manocha, R., Thomas, S. L., et al. (in preparation). A self report measure for Transient Implicit Explicit Synchronization (TIES).

Pritikin, J. N. & Schmidt, K. M. (in preparation). Relative characteristics of physical activities.

Pritikin, J. N., Brick, T. R., & Neale, M. C. (submitted). Full information maximum likelihod estimation with both ordinal and continuous variables.

Misc. Teaching Experience

2015 Oct **Faculty** Advanced Genetic Epidemiology Statistical Workshop: Applications to Drug Abuse. Richmond, VA

Conference Presentations

2017 May 27 *Bayesian model for characteristics of physical activities.* APS, Boston, MA

2017 May 23 *Toward multilevel variance decomposition of interactions in non-linear structural equation models.* Modern Modeling Methods, University of Connecticut, CT

2016 Jul 15 *Multilevel structural equation model rotation.* International Meeting of the Psychometric Society, Asheville, NC

2016 May 25 *Introduction to Relational SEM and an Efficient Computational Strategy for Relational SEM.* Modern Modeling Methods, University of Connecticut, CT

2015 Mar 23 *Statistical Modeling Without Seeing the Data.* 2015 Huskey Research Exhibition, University of Virginia, VA

2015 Feb 21 *Modern Test Theory Primer.* Workshop taught at The 5th International Symposium on Assessment in Music Education, Williamsburg, VA

2013 Mar 08 *A self-report measure for familiarity with mental silence.* Paper presented at The 3rd Global Conference on Spirituality in the 21st Century: Theory, Praxis and Pedagogy, Lisbon, Portugal.

Positions

2016-present **Postdoctoral Fellow**, *Virginia Commonwealth University*.

2015-2016 **Research Assistant**, *University of Virginia*, OpenMx Project.

2013-2014 **Teaching Assistant**, *University of Virginia*.
Undergraduate Advanced Research Methods & Data Analysis series (4005, 4006).
Undergraduate Introduction to Statistics for Psychology Majors (3006).

2011-2012 **Grader**, *University of Virginia*.
Undergraduate Introduction to Statistics for Psychology Majors series (3005, 3006).

2009–2011 **Software Engineer**, *Palo Alto Software*, Eugene, OR.
Worked on two products: Email management for customer service teams and LivePlan business planning software (Java, cloud computing).

2002–2006 **Husband/Father**, Nashik, India.
Spent a lot of time thinking about what I wanted to do with my life.

1996–2001 **Software Engineer**, *NatWest/Deutsche Bank*, New York City, NY.
Developed equities program trading system (Qt, Perl, C++, ObjectStore).

1993–1995 **Software Engineer**, *Various Companies*, New York City, NY.

1990–1992 **Undergraduate Student**, *Carnegie Mellon University*, Pittsburgh, PA.
Math/Computer Science Major

Department Presentations

2016 Dec 08 Confidence intervals for a parameter with an upper or lower bound

2016 Mar 17 Fast estimation of multilevel structural equation models

2015 Apr 16 Arne's transient hypofrontality hypothesis: A bridge between flow and meditation

2014 Oct 16 Examination of the likelihood function by simulation of a fictional Hamiltonian system

2014 Mar 27 Numeric derivatives: Pushing the accuracy limits

2013 Oct 17 Item Factor Analysis: Everything I told you in the spring was wrong, and current status

2013 Mar 28 A new implementation of Item Factor Analysis: Accuracy, flexibility, and speed

2012 Nov 01 Navigating the bowels of Marginal Maximum Likelihood: An expectation-maximization Item Response Theory estimation algorithm

2012 Apr 19 Is there a link between flow and meditation?

2011 Dec 05 Oscillation around non-stationary equilibria

Manuscripts Reviewed For

African Journal of Business Management

Cogent Education

Cogent Psychology
Frontiers in Applied Mathematics and Statistics (Quant. Psychology and Measurement)
Frontiers in Psychology (Quant. Psychology and Measurement)

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