

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. (2018). Computer programming in quantitative analysis. In B. Frey (Ed.), *The SAGE Encyclopedia of Educational Research, Measurement, and Evaluation* (1:335–1:339). Thousand Oaks, CA: SAGE.
- Pritikin, J. N., Brick, T. R., & Neale, M. C. (2018). Multivariate normal maximum likelihood with both ordinal and continuous variables, and data missing at random. *Behavior Research Methods*, 50(2), 395–401. doi:10.3758/s13428-017-1011-6
- 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

Joshua Pritikin, 800 E Leigh St, Biotech One, Suite 1-133
Richmond, VA 23219 – USA

☎ +1 (804) 601 6384 • ✉ jpritikin@pobox.com

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- 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.
- 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).
- Schmitta, J. E., Raznahan, A., Clasen, L. S., Wallace, G. L., Pritikin, J. N., Lee, N. R., . . . Neale, M. C. (in preparation). The dynamic associations between cortical thickness and general intelligence are genetically-mediated.
- Pritikin, J. N. & Neale, M. C. (submitted). Cloud computing for voxel-wise SEM analysis of MRI data.
- Pritikin, J. N. & Schmidt, K. M. (submitted). Exploration of flow-related trait differences across physical activities.

Misc. Teaching Experience

- 2018 Jan Introduction to R. National University of Singapore, Singapore
- 2017 Fall Statistics for Genetic Studies I, Richmond, VA
- 2017 Oct Advanced Genetic Epidemiology Statistical Workshop. Richmond, VA
- 2015 Oct 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

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- 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

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- 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 Human Neuroscience (Application of Neural Technology to Neuro-Management and Neuro-Marketing)

Frontiers in Psychology (Quant. Psychology and Measurement)

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