**Katerina M. Marcoulides**

Department of Psychology

N-654 Elliott Hall

75 East River Rd

Minneapolis, MN 55455

E-mail: kmarcoul@umn.edu

**EMPLOYMENT**

**University of Minnesota, Twin Cities**

Assistant Professor – Quantitative & Psychometric Methods Fall 2019 – Present

**University of Florida**

Assistant Professor – Research and Evaluation Methodology Fall 2017 – Summer 2019

Informatics Institute Affiliate

**EDUCATION**

Ph.D. – Quantitative Psychology, Arizona State University, 2017

Major Professors – Dr. Kevin J. Grimm & Dr. Roy Levy

Dissertation: A Bayesian Synthesis Approach to Data Fusion Using Augmented Data-Dependent Priors

M.A. – Quantitative Psychology, University of California, Davis, 2014

Major Professors – Dr. Keith F. Widaman & Dr. Kevin J. Grimm

B.A. – Psychology (Major), Education (Minor), University of California, Santa Barbara, 2012

College of Letters & Science, and Psychology Department Honors Programs

**JOURNAL PUBLICATIONS** (\* indicates student-mentored research)

Foldnes, N. Grønneberg, S., & **Marcoulides, K. M.** (in press). Simulating non-normal data for structural equation models using copulas. *Journal of Statistical Software.* DOI:10.18637/jss.v000.i00.

Conroy, M., Sutherland, K., Granger, K., **Marcoulides, K. M.**, Wright\*, J., Ramos, M.\*, & Montesion\*, A. (conditional acceptance). Effects of BEST in CLASS - Web on teacher outcomes: A preliminary investigation. *Journal of Early Intervention.* Special Issue: Early Childhood Education and Intervention is Online: Implementation and Effectiveness of Strategies that Support Remote Delivery of Evidence-Based Practices.

Kotze\*, J.-L., Frazier, P., Huber\*, K., **Marcoulides, K. M.**, & Lust, K. A. (2021). Identifying correlates of peer sexual harassment in US undergraduate and graduate students.Advanced online publication. *The Journal of Sex Research.* DOI:1080/00224499.2021.1966355.

Kam, J. A., Cornejo\*, M., & **Marcoulides, K. M.** (2021). A latent profile analysis of undocumented college students’ protection-oriented family communication and strengths-based psychological coping. *Journal of Communication*. DOI:10.1093/joc/jqab018.

Conroy, M., Sutherland, K., Granger, K., **Marcoulides, K. M.**, Huang\*, T., & Montesion\*, A. (2021). Preliminary study of the effects of BEST in CLASS - Web on young children’s social-emotional and behavioral outcomes. *Journal of Early Intervention.* Advanced online publication. DOI:10.1177/10538151211018662.

**Marcoulides, K. M.** & Trinchera, L. (2021).Residual-based algorithm for detecting unobserved heterogeneity in latent growth models: A Monte Carlo simulation study. *Frontiers in Psychology,* Quantitative Psychology and Measurement Section*,* Special issue on Advances in Mixture Modeling. DOI:10.3389/fpsyg.2021.618647.

Leite, W. L., Shen\*, Z., **Marcoulides, K. M.**, Fisk\*, C., Harring, J. (2021). Using ant colony optimization for sensitivity analysis in structural equation modeling. *Structural Equation Modeling.* Advanced online publication. DOI:10.1080/10705511.2021.1881786.

Kam, J. A., **Marcoulides, K. M.**, Steuber, K. R., Mendez Murillo\*, R., & Cornejo\*, M. (2021). Latina/o/x immigrant youth’s motivations for disclosing their family-undocumented experiences to a teacher(s): A latent transition analysis. *Journal of Communication,* 71(1), 27-55. DOI:10.1093/joc/jqaa036.

**Marcoulides, K. M.** (2021). Latent growth curve model selection with Tabu search. *International Journal of Behavioral Development,* 45(2), 153–159. DOI:10.1177/0165025420941170.

Yuan, K.-H., Gomer\*, B., & **Marcoulides, K. M.** (2021).Smoothed quantiles for χ2 type test statistics with applications. *Multivariate Behavioral Research.* Advanced online publication. DOI:10.1080/00273171.2020.1858018.

Kreiberg, D., **Marcoulides, K. M.,** & Olsson, U. H. (2020).A faster procedure for estimating CFA models applying minimum distance estimators. *Structural Equation Modeling,* 28(5),725-739*.* DOI:/10.1080/10705511.2020.1835484.

**Marcoulides, K. M.**, & Yuan, K.-H. (2020).Using equivalence testing to evaluate goodness of fit in multilevel structural equation models. *International Journal of Research & Method in Education,* 43(4), 431-443*.* Special Issue: The Contribution of Multilevel Structural Equation Modeling to Contemporary Trends in Educational Research. DOI:10.1080/1743727X.2020.1795113.

Raborn\*, A. W., Leite, W. L., & **Marcoulides, K. M.** (2020).A comparison of metaheuristic optimization algorithms for scale short form development. *Educational and Psychological Measurement,* 80(5), 910-931. DOI:10.1177/0013164420906600.

**Marcoulides, K. M.**,Foldnes, N., & Grønneberg, S. (2020). Assessing model fit in structural equation modeling using appropriate test statistics. *Structural Equation Modeling,* 27(3),369-379. DOI:10.1080/10705511.2019.1647785.

Himelfarb, I., **Marcoulides, K. M.**, Fang, G., & Shotts, B. L.(2020). A two-level alternating direction model for polytomous items with local dependence. *Educational and Psychological Measurement*, 80(2), 293-311.DOI:10.1177/0013164419871597.

Raborn\*, A., Leite, W., & **Marcoulides, K. M.** (2019). A comparison of automated scale short form selection strategies. In: M. Desmarais, C. n. F. Lynch, A. Merceron, & R. Nkambou (Eds.) *The 12th International Conference on Educational Data Mining*, Montréal, Canada, 402-407.

**Marcoulides, K. M.** (2019). Reliability estimation in longitudinal studies using latent growth curve modeling. *Measurement: Interdisciplinary Research and Perspectives,* 17(2),67-77. DOI:10.1080/15366367.2018.1522169.

**Marcoulides, K.** **M.** & Raykov, T. (2019). Evaluation of variance inflation factors in regression models using latent variable modeling methods. *Educational and Psychological Measurement,* 79(5),874-882*.* DOI:10.1177/0013164418817803.

**Marcoulides, K. M.** & Trinchera, L. (2019). Detecting unobserved heterogeneity in latent growth curve models. *Structural Equation Modeling,* 26(3), 390-401. DOI:10.1080/10705511.2018.1534591.

**Marcoulides, K. M.** & Khojasteh, J. (2018).Analyzing longitudinal data using natural cubic smoothing splines. *Structural Equation Modeling*, 25(6), 965-971. DOI:10.1080/10705511.2018.1449113.

Deng, L., Yang\*, M., & **Marcoulides, K. M**. (2018). SEM with many variables: Issues and developments. *Frontiers in Psychology,* Quantitative Psychology and Measurement Section, Advances and Practice in Psychometrics Research Topic. DOI:10.3389/fpsyg.2018.00580.

**Marcoulides, K. M.** (2018). Careful with those priors: A note on Bayesian estimation in two-parameter logistic item response theory models. *Measurement: Interdisciplinary Research and Perspectives*, 16(2), 92-99.DOI:10.1080/15366367.2018.1437305.

**Marcoulides, K. M.** (2018). Automated latent growth curve model fitting: A segmentation and knot selection approach. *Structural Equation Modeling*, 25(5), 687-699. DOI:10.1080/10705511.2018.1424548.

**Marcoulides, K. M.** & Falk, C. (2018). Model specification searches in structural equation modeling with *R*. *Structural Equation Modeling,* 25(3), 484-491. DOI:10.1080/10705511.2017.1409074.

Kam, J. A., **Marcoulides, K. M.**, & Merolla, A. J. (2017). Using an acculturation-stress-resilience framework to explore latent profiles of Latina/o language brokers. *Journal of Research on Adolescence,* 27(4), 842-861. DOI:10.1111/jora.12318.

**Marcoulides, K. M.** (2017). A Bayesian synthesis approach to data fusion using data-dependent priors. *Multivariate Behavioral Research,* 52(1), 111-112. DOI:10.1080/00273171.2016.1263927.

**Marcoulides, K. M.** & Yuan, K. -H. (2017). New ways to evaluate goodness of fit: A note on using equivalence testing to assess structural equation models. *Structural Equation Modeling,* 24(1), 148-153. DOI:10.1080/10705511.2016.1225260.

**Marcoulides, K. M.** & Grimm, K. J. (2017). Data integration approaches to longitudinal growth modeling. *Educational and Psychological Measurement,* 77(6) 971–989. DOI:10.1177/0013164416664117.

Grimm, K. J. & **Marcoulides, K. M.** (2016). Individual change and the onset of significant life events: methods, models, and assumptions. *International Journal of Behavioral Development*, 40(1), 87-96.DOI:10.1177/0165025415580806**.**

**UNDER REVIEW**

**Marcoulides, K. M.** (under review, R&R). Examining the effect of the number of common items in integrative data analyses. *Applied Psychological Measurement.*

Jing\*, Z., Kuang\*, H., Leite, W. L., & **Marcoulides, K. M.** (under review, R&R). Model specification search in structural equation modeling with a hybrid ant colony optimization algorithm. *Structural Equation Modeling.*

Torunsky\*, N.T., Knauz\*, S., Vilares, I., **Marcoulides, K.M**., & Koutstaal, W. (under review). Registered Report: Latent trait mediation analysis of alexithymia, experiential avoidance, and psychological distress: A latent analysis using three alexithymia questionnaires. *Journal of Personality.*

Fisk\*, C., Harring, J., Shen\*, Z., Leite, W. L., Seun\*, K.Y. & **Marcoulides, K. M.** (under Review.). Using simulated annealing to investigate sensitivity to external model misspecification in SEM. *Educational and Psychological Measurement.*

**BOOK CHAPTERS**

**Marcoulides, K. M.**, & Yuan, K. -H. Deng, L. (in press). Structural equation modeling with small samples and many variables. In *Handbook of Structural Equation Modeling, Second Edition*, Guilford Press.

Deng, L., Yang\*, M., & **Marcoulides, K. M**. (2018). SEM with many variables: Issues and developments. In *Top 10 Contributions on Psychology*, Avid Science. ISBN: 978-93-88170-10-9.

**INVITED TALKS**

**Marcoulides, K. M.** (2020, October). Statistical approaches for modeling and predicting COVID-19 outcomes. *Invited talk, Introduction to the Psychology of Pandemics,* University of Minnesota, Minneapolis, MN. (Online)

**Marcoulides, K. M.** (2020, September). Detecting unobserved heterogeneity in growth mixture models: A Monte Carlo simulation study. *Invited talk,* *Quantitative Seminar,* Vanderbilt University,Nashville, TN. (Online)

**Marcoulides, K. M.** (2019, November). A Comparison of metaheuristic optimization algorithms for scale short form development. *Invited talk,* *Quantitative Seminar,* University of Notre Dame,South Bend, IN.

**Marcoulides, K. M.** (2018, March). Introduction to longitudinal growth modeling. *Invited talk, Research Colloquium in Developmental Psychology,* University of Florida, Gainesville, FL.

**Marcoulides, K. M.** (2018, March). Automated latent growth curve model fitting: A segmentation and knot selection approach. *Invited talk, Advanced Structural Equation Modeling,* University of Florida, Gainesville, FL.

Grimm, K. J. & **Marcoulides, K. M.** (2015, November). Data integration approaches to longitudinal growth modeling. *Invited talk,* *Quantitative Seminar,* University of Notre Dame,South Bend, IN.

**CONFERENCE PRESENTATIONS**

**PAPER PRESENTATIONS**

Kam, J. A., Cornejo\*, M., & **Marcoulides, K. M.** (May, 2021). A latent profile analysis of undocumented college students’ protection-oriented family communication and strengths-based psychological coping. *Paper presented at the International Communication Association.* Top 4 Paper Panel. Interpersonal Communication Division.

**Marcoulides, K. M.** & Trinchera, L. (2021, April). Residual-based algorithm for detecting mixtures in latent growth models. *Paper presented at the American Educational Research Association (AERA) Virtual Annual Meeting*. Methodological Advances in Longitudinal Mixture Modeling Symposium. (Online)

Suen\*, K. Y., & **Marcoulides, K. M.** (2021, April). Sensitivity analysis to omitted confounders in structural equation modeling using Tabu search. *Paper presented at the American Educational Research Association (AERA) Virtual Annual Meeting*. Sensitivity Analysis in Structural Equation Modeling Symposium. (Online)

Quan\*, J., & Wright\*, E. & **Marcoulides, K. M.** (2020, July). The impact of sample size on exchangeability in Bayesian Synthesis. *Paper presented at the International Meeting of the Psychometric Society (IMPS),* College Park, MD. (Online)

Douglas, R. D., Duffy, R., & **Marcoulides, K. M.** (2020, June). Functional social support among LGBT+ individuals: Implications for well-being. *Paper for the International Conference on LGBT+ Psychology and related fields – Promoting Equality, Social Justice and Psychosocial Well-Being in a Contrasting World*, Lisbon, Portugal. (Conference canceled)

**Marcoulides, K. M.** (2020, April). Examining the effect of the number of common items in integrative data analyses. *Paper for the National Council on Measurement in Education (NCME) Annual Meeting,* San Francisco, CA. (Conference canceled)

**Marcoulides, K. M.** & Trinchera, L. (2020, April). Residual-based algorithm for detecting mixtures in latent growth models. *Paper for the American Educational Research Association (AERA) Annual Meeting*, San Francisco, CA. Longitudinal Mixture Modeling Symposium. (Conference canceled)

Raborn\*, A. W., Leite, W. L., & **Marcoulides, K. M.** (2019, July). a comparison of automated scale short form selection strategies. *Paper presented at the Educational Data Mining conference,* Montréal, Canada.

Trinchera, L., & **Marcoulides, K. M.** (2019, March). Detecting unobserved heterogeneity in latent growth curve models. *Paper presented at the European Conference on Data Analysis,* Bayreuth, Germany.

Raborn\*, A. W., Leite, W. L., & **Marcoulides, K. M.** (2018, November).Comparison of automated short form selection strategies. *Paper presented at the Annual Meeting of the Florida Educational Research Association (FERA),* St. Petersburg, FL.

**Marcoulides, K. M.** (2018, October). A Bayesian synthesis approach to data fusion for open source longitudinal data. *Paper presented at the SRCD* DEVSEC: Conference on the Use of Secondary and Open Source Data in Developmental Science, Phoenix, AZ.

**Marcoulides, K. M.** (2018, April). A Bayesian synthesis approach to data fusion using augmented data-dependent priors. *Paper presented at the National Council on Measurement in Education (NCME) Annual Meeting,* New York, NY.

Kam, J. A., **Marcoulides, K. M.,** Steuber, K. R., & Mendez Murillo\*, R. (2017, May). Uncovering patterns of family-undocumented-status disclosures for Latina/o early adolescents: A latent transition analysis of the revelation risk model. *Paper presented at the International Communication Association Annual Conference,* San Diego, CA*.* Top Paper Panel, Award winner. Interpersonal Communication Division.

Kam, J. A., **Marcoulides, K. M.**, & Merolla, A. J. (2016, November). Using an acculturation-stress-resilience framework to explore latent profiles of Latina/o early adolescent language brokers. *Paper presented at the National Communication Association,* Philadelphia, PA*.* Top Paper Panel, Award winner. Health Communication Division.

**Marcoulides, K. M.** & Grimm, K. J. (2016, July). A Bayesian approach to data fusion. *Paper presented at the International Meeting of the Psychometric Society (IMPS),* Asheville, NC.

**Marcoulides, K. M.** & Grimm, K. J. (2015, July). Data integration methods and implementing IRT models for test linking: When multiple versions of a measurement tool have been administered for longitudinal child assessment. *Paper presented at the International Meeting of the Psychometric Society (IMPS),* Beijing, China.

**Marcoulides, K. M.** & Grimm, K. J. (2015, March). Individual change and the onset of significant life events: Methods, models, and assumptions. *Paper presented at the Bi-annual Meeting of the Society for Research in Child Development (SCRD),* Philadelphia, PA.

**POSTER PRESENTATIONS**

Quan\*, J., Wright\*, E., & **Marcoulides, K. M.** (2019, November). Examining the impact of sample size on exchangeability in the Bayesian synthesis approach to data fusion. *Poster presented at the Annual Meeting of the Florida Educational Research Association (FERA)*, St. Petersburg, FL.

Jing\*, Z., Kuang\*, H., Leite, W. L., & **Marcoulides, K. M.** (2019, January). Using the skew t distribution to estimate generalized propensity score for highly skewed continuous treatments. *Poster presented at the Statistics Annual Winter Workshop*, University of Florida, Gainesville, FL.

Kuang\*, H., Jing\*, Z., Leite, W. L., & **Marcoulides, K. M.** (2019, January). Sensitivity analysis for omitted confounders in structural equation modeling. *Poster presented at the Statistics Annual Winter Workshop*, University of Florida, Gainesville, FL.

**Marcoulides, K. M.** (2018, October). Analyzing longitudinal data using natural cubic smoothing splines. *Poster presented at the SRCD* DEVSEC: Conference on the Use of Secondary and Open Source Data in Developmental Science, Phoenix, AZ.

**Marcoulides, K. M.** & Grimm, K. J. (2016, December). Data integration methods: A comparison between data fusion and parallel analysis. *Poster presented at the Institute for Social Science Research* *Graduate Student Poster Competition,* Tempe, AZ. Second Place Poster Award.

**Marcoulides, K. M.** (2016, October). A Bayesian synthesis approach to data fusion using data dependent priors. *Poster presented at the Society of Multivariate Experimental Psychology (SMEP) Graduate Student Conference,* Richmond, VA.

**Marcoulides, K. M.** & Grimm, K. J. (2016, May). Research synthesis approaches to longitudinal growth modeling. *Poster presented at the Association for Psychological Science Convention (APS),* Chicago, IL.

Horowitz, E., **Marcoulides, K. M.**, Barlev, M., Cohen, A., German, T. (2013, March). Mistaken identity: Preschool children pass tasks assessing identity statements earlier than false belief tasks. *Poster presented at the Bi-annual Meeting of the Society for Research in Child Development (SCRD),* Seattle, WA.

**GRANTS/RESEARCH SUPPORT**

Funded Title: Unequal Parenthoods: Population Perspectives on Gender, Race and Sexual Minority Disparities in Family Stress and Health During Crises,Granting Agency: National Institute of Health, Eunice Kennedy Shriver National Institute of Child Health & Human Development, U01HD108779, Total Cost: $2,127,518, Duration: 5 Years (10/1/2021-9/30/2026), Role: Co-Investigator, PI: Claire Kamp Dush, University of Minnesota.

Funded Title: BEST in CLASS Web: A Web-based Intervention Supporting Early Childhood Teachers' Use of Evidence-based Practices with Young Children at Risk for Emotional/Behavioral Disorders, Granting Agency: Institute of Education Sciences, R324A161058, Total Cost: $1,500,000, Duration: 3 years (8/1/2016-7/31/2019), Role: Statistical Consultant, PI: Maureen Conroy, University of Florida.

Pending Title: Mechanisms Driving Health Disparities in Recovery and Deterioration Following the COVID-19 Pandemic Outbreak. Granting Agency: National Institute of Health, Social Psychology, Personality and Interpersonal Processes Study Section, Total Cost: $1,843,604, Duration: 5 Years (11/1/2021-10/30/2026), Role: Co-Investigator, PI: Claire Kamp Dush, University of Minnesota.

Pending Title: Mechanistic Mediators and Moderators of Structural Discrimination Health and Disparities in the context of COVID. Granting Agency: National Institute of Health, Social Psychology, Personality and Interpersonal Processes Study Section, Duration: 5 Years (12/1/2021-11/30/2026), Role: Co-Investigator, PI: Claire Kamp Dush, University of Minnesota.

Not Funded Title: Automated clustering of student activity in STEM online learning environments, Granting Agency: National Science Foundation - Methodology, Measurement, and Statistics, CFDA Number: 19-575, Total Cost: $585,787, Duration: 3 Years (7/11/2021-6/30/2024), Role: Co-Principal Investigator, PI: Walter Leite, University of Florida, Co-PI: Karen Nylund-Gibson, University of California, Santa Barbara.

Not Funded Title: Evaluation of the Psychometric Properties of a Math Assessment for Preschoolers with Disabilities. Granting Agency: Institute of Education Sciences - Special Education Research Grant, CFDA Number: 84.324A, Total Cost: $1,363,483, Duration: 4 Years (7/1/2021-6/30/2025), Role: Co-Investigator, PI: Jessica Hardy, University of Illinois, Urbana Champaign.

Not Funded Title: Sensitivity Analysis to Omitted Confounders in Structural Equation Modeling with Metaheuristic Algorithms, Granting Agency: Institute of Education Sciences - Statistical and Research Methodology in Education CFDA Number: 84.305D, Total Cost: $867,597, Duration: 3 Years (8/15/2021-8/14/2024), Role: Co-Principal Investigator, PI: Walter Leite, University of Florida, Co-PI: Jeffrey Harring, University of Maryland.

Not Funded Title: Validation of the Intimate Partner Violence Measure, Granting Agency: National Institute of Health, FOA number: RFA-MD-20-005, Total Cost: $275,000, Duration: 2 Years (8/15/2020-8/14/2022), Role: Co-Investigator, PI: Autumn Bermea, Ohio State University, Co-PI: Claire Kamp Dush, University of Minnesota.

Not Funded Title: Sensitivity Analysis to Omitted Confounders in Structural Equation Modeling with Metaheuristic Algorithms, Granting Agency: Institute of Education Sciences, Statistical and Research Methodology in Education CFDA Number: 84.305D, Total Cost: $798,486, Duration: 3 Years (8/15/2020-8/14/2023), Role: Co-Principal Investigator, PI: Walter Leite, University of Florida, Co-PI: Jeffrey Harring, University of Maryland.

Not Funded Title: Automated specification of mixture models for STEM online learning environments, Granting Agency: National Science Foundation, CFDA Number: 19-508, Total Cost: $499,530, Duration: 3 Years (8/15/2020-8/14/2023), Role: Co-Principal Investigator, PI: Walter Leite, University of Florida, Co-PI: Karen Nylund-Gibson, University of California, Santa Barbara.

Not Funded Title: Validation of a Task Engagement Factor in Early Childhood and Exploration of Its Mediating Role in Children’s Executive Function and Academic Performance, Granting Agency: National Institute of Child Health and Human Development R03, Total Cost: $100,000, Duration: 2 years (8/15/2020-8/14/2022) Role: Statistical Consultant, PI: Feihong Wang, Co-PI: Patricia Snyder, Co-PI: Maureen Conroy, University of Florida.

Not Funded Title: Sensitivity Analysis to Omitted Confounders in Structural Equation Modeling with Metaheuristic Algorithms, Granting Agency: Institute of Education Sciences, Statistical and Research Methodology in Education CFDA Number: 84.305D, Total Cost: $798,486, Duration: 3 Years (8/15/2019-8/14/2022), Role: Co-Principal Investigator, PI: Walter Leite, University of Florida.

Not Funded Title: Development of a Modified, Sustainable Practice-Based Coaching Model for Use in Preschool Classrooms, Granting Agency: Institute of Education Sciences, Special Education Research Grants CFDA Number: 84.324A, Duration: 4 Years (7/1/2019-6/30/2023), Role: Statistical Consultant, PI: Ragan McLeod, University of Alabama, Co-PI: Jessica Hardy, University of Louisville, Co-PI: Sara McDaniel, University of Alabama.

Not Funded Title: Development of a Targeted Instructional Approach to Improve Math Learning in Preschoolers with or At-Risk for Math Delays, Granting Agency: Institute of Education Sciences, Education Research Grants CFDA Number: 84.305A Total Cost: $1,420,000, Duration: 4 Years (7/1/2019-6/30/2023), Role: Statistical Consultant, PI: Jessica Hardy, University of Louisville.

**AWARDS & HONORS**

Arthur “Red” Motley Exemplary Teaching Award Nomination (2020-2021 & 2021-2022) Association for Psychological Science (APS) Rising Star Award, 2021

International Communication Association, Interpersonal Communication Division Top Paper Award, 2021

International Communication Association, Interpersonal Communication Division Top Paper Award, 2017

National Communication Association*,* Health Communication Division Top Paper Award, 2016

Institute for Social Science Research Graduate Student Poster Competition, Second Place, 2016

Society of Multivariate Experimental Psychology (SMEP) Graduate Student Conference Travel Award, 2016

ASU Graduate and Professional Student Association (GPSA) Interview Travel Grant, 2016

International Meeting of the Psychometrics Society (IMPS) Travel Award, 2016

ASU Department of Psychology Travel Award, 2016

ASU College of Letters and Sciences Graduate Excellence Award, 2015-2016 and 2016-2017

Society of Multivariate Experimental Psychology (SMEP) Workshop Travel Award, 2015

ASU Research Excellence Award, Fall 2014 & Spring 2015

UC Davis Internal Fellowship Award, Fall 2012

UC Santa Barbara Chairperson’s Award, 2011-2012

UC Santa Barbara Distinction in the Major, 2011-2012

UC Santa Barbara Awards for Excellence in Research and Writing (Honorable Mention), 2010

UC Santa Barbara Dean’s Honors, Fall 2009, Fall, Winter & Spring 2011, Winter & Spring 2012

**TEACHING EXPERIENCE**

|  |  |
| --- | --- |
| University of Minnesota 2019–Present | *- Honors Psychological Measurement and Data Analysis**- Multilevel Modeling for Psychological Data (graduate course)**- Directed Research in Psychology* |
| University of Florida2017–2019  | - *Advanced Quantitative Foundations of Educational*  *Research (Regression Analysis; graduate course)**- Multilevel Modeling (graduate course)*-*Data Mining in Educational Research (graduate course)* |

**Teaching Associate**

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| --- | --- |
| Arizona State University 2014–2017  | *- Data Mining in Psychology (graduate course)**- Longitudinal Growth Modeling (graduate course)* *- Multilevel Modeling (graduate course)* |

**Teaching Assistant**

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| University of California, Davis 2013–2014  | - *Causal Modeling of Correlational Data (Regression*  *Analysis; graduate course)* *- Cognitive Development**- Introduction to Psychology**- Research Methods in Psychology* |

**PROFESSIONAL WORKSHOP TEACHING**

|  |  |  |
| --- | --- | --- |
| 11/2018 | Invited Presenter | Introduction to Educational Data Mining Workshop. Annual Meeting of the Florida Educational Research Association (FERA), St Petersburg, FL  |
| 06/2016 | Presenter & Teaching Assistant | Big Data: Exploratory Data Mining in Behavioral Research Workshop. APA Advanced Training Institute, Arizona State University |
| 05/2016 | Presenter & Teaching Assistant | Structural Equation Modeling in Longitudinal Research Workshop. APA Advanced Training Institute, Arizona State University |
| 06/2015 | Presenter & Teaching Assistant | Exploratory Data Mining in Behavioral Research Workshop. APA Advanced Training Institute, Arizona State University |
| 05/2015 | Presenter & Teaching Assistant | Structural Equation Modeling in Longitudinal Research Workshop. APA Advanced Training Institute, Arizona State University |
| 06/2013 & 06/2014 | Teaching Assistant | Exploratory Data Mining in Behavioral Research Workshop. APA Advanced Training Institute, University of California, Davis |
| 05/2013 & 05/2014 | Teaching Assistant | Structural Equation Modeling in Longitudinal Research Workshop. APA Advanced Training Institute, University of California, Davis |

**REVIEWING ACTIVITY**

**Statistical Consulting Editor**

*Child Development* (2020 – Present)

**Special Issue Invited Editor**

*Frontiers in Psychology* and *Frontiers in Education* cross-listing, Research Topic: “Advances in Mixture Modeling” (2020-2021)

**Editorial Board Member**

 *Educational and Psychological Measurement* (2018 – Present)

 *Measurement: Interdisciplinary Research and Perspectives* (2020 – Present)

*Journal of Advances in Applied & Computational Mathematics* (2021 – Present)

**Ad Hoc Reviewer**

 *American Educational Research Journal* (2/19)

*American Statistician* (9/19)

*Applied Psychological Measurement* (6/17, 4/20, 7/20, 10/21)

*British Journal of Mathematical and Statistical Psychology* (7/20, 10/20)

*BMC Medical Research Methodology* (9/18, 12/18, 1/19, 6/19, 9/19, 10/19, 11/20, 1/21)

*BMJ Open* (9/19, 10/19)

 *CBE - Life Sciences Education* (3/20)

*Cogent Medicine* (3/20)

*Communications in Statistics* (12/20, 3/21, 7/21)

*Cyberpsychology* (3/21)

*Frontiers in Medicine* – Infectious Diseases: Surveillance, Prevention, and Treatment (4/20)

*Frontiers in Psychology –* Organizational Psychology (2/21)

*Frontiers in Psychology –* Quantitative Psychology and Measurement (9/21)

*International Journal of Research & Method in Education* (9/21)

*Journal of Educational Measurement* (7/18, 3/19)

*Journal of Educational and Behavioral Statistics* (3/21)

*Mathematics* – Probability and Statistics Theory (5/20, 6/20)

*Mathematics* – Quantitative Methods for Economics and Finance (3/20, 4/20)

*Multivariate Behavioral Research* (6/18, 8/19, 9/21)

*PLOS ONE - Public Library of Science* (7/20)

*Psychological Methods* (6/20, 8/20, 12/20, 8/21, 10/21)

*Psychometrika* (10/20, 7/21)

*Psychopathology* - Experimental Psychopathology (2/20)

*Research on Child and Adolescent Psychopathology* (4/21)

*Sage Open* (8/20, 10/20)

*Structural Equation Modeling* (11/20)

**Book Proposal Reviewer**

SAGE Publishing (11/19)

 John Wiley & Sons (12/19)

**Book Reviewer**

Guilford Press (7/20)

 Guilford Press (3/21)

**Grant Reviewer**

U.S. Army Engineer Research and Development Center (2021)

**Conference Proposal Reviewer**

American Educational Research Association (AERA) – 2020, 2021

National Council on Measurement in Education (NCME) – 2018, 2019, 2020

NCME Special Conference on Classroom Assessment – 2017

Society of Multivariate Experimental Psychology (SMEP) Graduate Conference – 2017

Society for Research in Child Development (SRCD) – 2020

**LEADERSHIP AND SERVICE**

**National Organizations**

|  |  |  |
| --- | --- | --- |
| 2020 – Present | Científico Latino Graduate School Mentorship Program | Mentor |
| 2018 – 2021 | Significant Contributions to Research Methodology Committee, American Educational Research Association (AERA), Division D | Committee Member |

**University of Minnesota**

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| --- | --- | --- |
| 2021 – Present  | Appointments Committee | Committee Member |
| 2021 – Present | Graduate Education Advisory Committee | Committee Member |
| 2021 | Virtual Diversity in Psychology Program | Program Overview Video Recording |
| 2020 – 2021  | Graduate Admissions & Funding Committee | Committee Member |
| 2020 – 2021 | Graduate Student Awards Committee | Committee Member |
| 2021 | Faculty Journey: Overcoming Obstacles | Speaker (online) |
| 2020 | Honors Laboratory Research Sampler | Online Interview |
| 2020 | Graduate Student Professional Development: Women in Quantitative Psychology | Speaker (online) |
| 2020 | Graduate Student Life Committee and Graduate Studies Workshop | Speaker (online) |
| 2019  | Diversity in Psychology Program | Faculty Participant |
| 2019 | Course observation for Student Seminar on Pedagogy | Facilitator |

**University of Florida**

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| --- | --- | --- |
| 2018 – 2019  | University Minority Mentor Program | Mentor |
| 2018 – 2019 | Lectures, Seminars, & Awards Committee, Faculty Policy Council | Committee Member |
| 2018 – 2019 | Educational Psychology and Research Specialization of the Undergraduate Major in Education Sciences Development Committee | DevelopmentCommittee Member |
| 2018 – 2019 | Quantitative Methods Faculty Search Committee, Department of Psychology | Committee Member |
| 2018 – 2019 | Math Education Faculty Search Committee, College of Education | Committee Member |
| 2018  | Student Alliance of Graduates in Education (SAGE), College of Education Research Symposium | Paper Competition Reviewer/Judge |
| 2017 – 2018 | Advanced Placement Capstone Program: Research, Hialeah Senior High School, Miami, FL | Research Consultant |

**Arizona State University**

|  |  |  |
| --- | --- | --- |
| 2016 – 2017  | Graduate and Professional Student Association | Research Grant Reviewer  |
| 2016 – 2017  | Graduate and Professional Student Association | Travel Grant Reviewer  |
| 2016 – 2017  | Association for Psychological Science Student Caucus  | Campus Representative  |
| 2014 – 2015  | Graduate Studies Committee | Student Representative |

**STUDENT MENTORING**

**University of Minnesota**

GRADUATE STUDENTS

|  |  |  |  |
| --- | --- | --- | --- |
| King Yiu Suen | Quantitative & Psychometric Methods, PhD | 2019-present | Chair |
| Haema Nilakanta | Department of Statistics, PhD | 2019-2020 | Member |
| Ziming Zhou | Department of Statistics, MA | 2019-2020 | Member |
|  | Quantitative & Psychometric Methods, PhD | 2021-present | Member, Chair (2022) |
| Marianne Elmquist | Educational Psychology, PhD | 2020-present | Member |
| Lauren Berry | Department of Statistics, MA | 2020 | Member |
| Raj Wahlquist | Quantitative & Psychometric Methods, PhD | 2020-present | Co-Chair |
|  | Department of Statistics, MA | 2020-present | Member |
| Allison Cooperman | Quantitative & Psychometric Methods, PhD | 2021-present | Member |
| Alec Nyce | Quantitative & Psychometric Methods, PhD | 2021-present | Member |
| Justin Kracht | Quantitative & Psychometric Methods, PhD | 2021-present | Member |

UNDERGRADUATE STUDENTS

|  |  |  |  |
| --- | --- | --- | --- |
| Leif Anderson | Undergraduate Research Opportunities Program (UROP), Psychology Major | 2019-2020 | UROP Mentor |
| Sam Lefebvre | Directed Research in Psychology (Honors Thesis) | 2019-2020 | Honors Thesis Advisor |
|  |
| Celine Jennings | Honors Thesis in Psychology | 2020-present | Honors Thesis Reader |  |

**University of Florida**

GRADUATE STUDENTS

|  |  |  |  |
| --- | --- | --- | --- |
| Anthony Raborn | Research & Evaluation Methodology, PhD | 2017-2019 | Member |
| Alexandra Binney | School Psychology, PhD | 2017-2019 | Member |
| Marlene Garzona | School Psychology, PhD | 2017-2019 | Member |
| Nicolette Grasley-Boy | Special Education, School Psychology, & Early Childhood Studies, PhD | 2017-2019 | Member |
| Nicole M. Gibson | School Psychology, PhD | 2018-2019 | Member |
| Sherry Zhou | Research & Evaluation Methodology, MA | 2018-2019 | Member |
| Jia Quan | Research & Evaluation Methodology, MA | 2018-2021 | Member,Chair (2018) |
| Eric Wright | Research & Evaluation Methodology, MA | 2018-2021 | Member,Chair (2018) |

**LAB AFFILIATIONS & PROFESSIONAL EXPERIENCE**

|  |  |  |
| --- | --- | --- |
| 2019–present | Data Analytics & Visualization Lab | Lab Director |
| 2016 (Summer) | Research and Measurement Services at Houghton Mifflin Harcourt (HMH) | Research Intern |
| 2014–2017  | Health and Developmental Research Methods Lab, Arizona State University | Graduate Student Researcher |
| 2012–2014 | Longitudinal Methods Lab, UC Davis | Graduate Student Researcher |
| 2012 (Summer)  | VU University, Amsterdam, The Netherlands | Research Intern  |
| 2011–2012 | Department of Psychological and Brain Sciences, UC Santa Barbara | Peer Psychology Advisor |
| 2012 (Fall) | Ellwood Elementary School, Santa Barbara, CA | Student Teacher |
| 2011 (Summer)  | Cognition & Development Lab, Yale University | Research Intern |
| 2011 | Close Relationships Lab, UC Santa Barbara | Research Assistant |
| 2009–2012 | META Lab (Memory, Emotion, Thought, and Awareness), UC Santa Barbara | Research Assistant |

**PROFESSIONAL DEVELOPMENT WORKSHOPS & SHORT COURSES**

Addressing Implicit Bias in Search and Selection Processes (2021)

Learning Analytics and Education Research Data (2021)

Python Web Application Programming Interfaces (2021)

Artificial Intelligence and Disparities (2021)

Equity in Action PD Series: Inclusive Mentoring (2021)

Constellate Introduction to Text Analytics (2021)

Cutting-Edge Quantitative and Computational Methods for STEM Education Research (2021)

Diversity - Fundamentals: Equity in Graduate Admissions (2020)

Foundations of Online Teaching Program (2020)

Online Problem-solving & Programming Labs, Center for Educational Innovation (2020)

Statistical Learning for Process Data (2020)

R Summer Workshop Series (2020)

Power and Sample Size for Multilevel and Longitudinal Study Designs (2020)

Teaching with Writing Winter Workshop (2020)

Python Web Scraping (2019)

Intro to Python (2019)

Teaching with Writing in Quantitative Disciplines (2019)

Record Linkage Workshop, Minnesota Population Center (2019)

Apache Spark, HiPerGator, Efficient Framework for Big Data Workshop (2018)

Big Data in the Health Sciences (2018)

Creating Reproducible Research Reports Using RMarkdown (2018)

A Practical Guide to Multilevel Modeling (2018)

Nonparametric Statistical Tools for the Social Sciences (2017)

Bayesian Item Response Theory Using Stata (2016)

Fundamentals of Item Response Theory (2016)

Studying Lagged Relationships (2016)

flexMIRT: Flexible Multilevel Multidimensional Item Analysis and Test Scoring (2015)

**MEMBERSHIPS**

American Educational Research Association

American Psychological Association

Association for Psychological Science

Florida Educational Research Association

Informatics Institute Affiliate, University of Florida

National Council on Measurement in Education

Psi Chi National Honor Society, University of California Santa Barbara

Psychometric Society

Society for Personality and Social Psychology

Society for Research in Child Development