Suthakaran Ratnasingam, Ph.D.

suthakaran.ratnasingam@csusb.edu | | Office: 909-537-5366 | | *https://suthakaranr.github.io*

EDUCATION

- **Bowling Green State University, Bowling Green, OH, USA**
  Ph.D. in Statistics   Aug 2020
  Advisor: Prof. Wei Ning

- **University of Nebraska at Omaha, Omaha, NE, USA**
  M.A. in Mathematics   Dec 2015
  Advisor: Prof. Steven G. From

- **University of Peradeniya, Peradeniya, Sri Lanka**
  Postgraduate Diploma in Applied Statistics   July 2013
  B.Sc. (Honours) in Statistics and Operations Research   Aug 2010

RESEARCH INTERESTS

Change Point Analysis, Sequential Analysis, High-dimensional Statistics, Extreme Value Analysis, Confidence Distributions, Empirical Likelihood

PROFESSIONAL EXPERIENCES

- **Assistant Professor**   Aug 2020 - Present
  Department of Mathematics
  California State University, San Bernardino, CA, USA

- **Graduate Teaching Associate**   Aug 2016 - Aug 2020
  Department of Mathematics and Statistics
  Bowling Green State University, Bowling Green, OH, USA

- **Graduate Teaching Assistant**   Aug 2014 - Dec 2015
  Department of Mathematics
  University of Nebraska at Omaha, Omaha, NE, USA

- **Lecturer**   March 2014 - Aug 2014
  Department of Mathematics and Computer Science
  The Open University of Sri Lanka, Nawala, Sri Lanka

- **Teaching Assistant**   Nov 2012 - March 2014
  Department of Mathematics & Philosophy of Engineering
  The Open University of Sri Lanka, Nawala, Sri Lanka

Awards & Scholarships

- Office of Student Research Undergraduate Summer Research Program Award, California State University - San Bernardino   Summer 2022
- Summer Research Fellowship, California State University - San Bernardino   Summer 2022
- Graduate College Distinguished Dissertation Award, Bowling Green State University   2020 - 2021
- J Robert and Gretchen Overman Scholarship, Department of Mathematics and Statistics, Bowling Green State University   2020 - 2021
- UNO Advantage Scholarship, University of Nebraska at Omaha   2014 - 2015
- Mahapola Higher Education Scholarship for the Best Performance in G.C.E (A/L), Sri Lanka 2006 - 2010

Articles in Refereed Journals

[12] From, S. G., & **Ratnasingam, S.** (2022+) Some Efficient Closed Form Estimators of the Parameters of the Generalized Pareto Distribution *(In review)*.

[11] **Ratnasingam, S.**, & Ning, W. (2022) Confidence Intervals of Mean Residual Life Function in Length-Biased Sampling Based on Modified Empirical Likelihood. *Journal of Biopharmaceutical Statistics.*

[10] **Ratnasingam, S.**, Buzaianu, E. & Ning, W. (2022) Modified information criterion for testing changes in generalized lambda distribution model based on confidence distribution. *Communications for Statistical Applications and Methods*, 29 (3), 301-317.

[9] From, S. G., & **Ratnasingam, S.** (2022) Some New Inequalities for the Beta Function and Certain Ratios of Beta Functions. *Results in Applied Mathematics.*

[8] Li, M., **Ratnasingam, S.**, & Ning, W. (2022) Empirical-Likelihood-Based Confidence Intervals for Quantile Regression Models with Longitudinal Data. *Journal of Statistical Computation and Simulation*.

[7] **Ratnasingam, S.**, & Ning, W. (2021) Monitoring Sequential Structural Changes in Penalized High-Dimensional Linear Models. *Sequential Analysis*, 40(3), 381-404.

[6] From, S. G., & **Ratnasingam, S.** (2021) Some New Bounds for Moment Generating Functions of Various Life Distributions Using Mean Residual Life Functions. *Journal of Statistical Theory and Practice*, 15(2), 1-14.

[5] **Ratnasingam, S.**, & Ning, W. (2021) Modified Information Criterion for Regular Change Point Models Based on Confidence Distribution. *Environmental and Ecological Statistics*, 28(2), 303-322.

[4] **Ratnasingam, S.**, & Ning, W. (2021) Sequential Change Point Detection for High-Dimensional Data Using Nonconvex Penalized Quantile Regression. *Biometrical Journal*, 63(3), 575-598.

[3] **Ratnasingam, S.**, & Ning, W. (2020) Statistical Inference for the Lomax-Linear Failure Rate Distribution. *Far East Journal of Theoretical Statistics*, 59(1), 35-58.

[2] **Ratnasingam, S.**, & Ning, W. (2020) Confidence Distributions for Skew Normal Change Point Model Based on Modified Information Criterion. *Journal of Statistical Theory and Practice*, 14(3), 1-21.

[1] From, S. G., & **Ratnasingam, S.** (2016), Some New Refinements of the Arithmetic, Geometric and Harmonic Mean Inequalities with Applications, *Applied Mathematical Sciences*, 10(52), 2553-2569.

Conference Proceedings

[2] **Ratnasingam, S.**, Perera, K., Wikramanayake, N. (2014), Rainfall Intensity-DurationFrequency Relationship for Colombo Region in Sri Lanka, *Proceedings of the SAITM Research Symposium on Engineering Advancements*, 101-104pp, 26th April, ISBN 978-955-0638-03-1.

[1] **Ratnasingam, S.**, Perera, K., Wikramanayake, N. (2014), Identify the Best Probability Distribution for Daily Maximum Rainfall in Colombo, Sri Lanka, *Proceedings of the International Conference on Mathematical Modeling*, 89-93pp, 14th March, ISBN 978-955-046-054-0.

R Packages

- **IneqBetaFun**

    This R package provides several new upper and lower bounds for the Beta function and the quotient of Beta functions proposed in *From and Ratnasingam (2022)*.

- **EfficientClosedGPD**

    This R package provides some efficient closed form estimators of the parameters of the Generalized Pareto Distribution.

Colloquium & Seminar Talks

- *Contributed:* Real-Time Change Point Detection in High-Dimensional Linear Models - 2022 Annual Meeting WNAR / IMS / JR (online)   June 10 – 15, 2022
- Sequential Change Point Detection for High-Dimensional Data using Non-convex Penalized Quantile Regression - Colloquium, Department of Mathematics, CSUSB   Oct 09, 2020
- Confidence Distribution - Statistics Seminar, Department of Mathematics Statistics, Bowling Green State University   Sep 19, 2018

Conferences & Workshops

- 2022 WNAR/IMS/JR Annual Meeting   June 10-11, 2022
- OCLB ASA Application of Statistical Inference through Data Science Techniques   Nov 06, 2020
- 25th Distinguished Statistician Colloquium   Oct 14, 2020

- Integrating Big Data into Surveillance Models to Inform Decision Making for COVID-19 Oct 23, 2020
- Advocating for Student of Color: There's More You Can Do   Sep 25, 2020
- OCLB ASA 2020 Q3 Quarterly Social - Research Showcase   Sep 14, 2020
- CourseKata Summer Workshop, CSUSB   June 22 - July 24
- Teaching Statistics with Simulation-Based Inference Workshop   April 03, 2020

Classes Taught

- California State University - San Bernardino, CA, USA
    - Math 2265 - Statistics with Applications
        Fall 20, Spring 21 (2 sections), Fall 21 (2 sections), Spring 22 (2 sections), Fall 22
    - Math 3460 - Probability Theory
        Fall 20 (2 sections)
    - Math 3465 - Computational Statistics
        Fall 22
    - Math 4360 - Linear Statistical Models
        Fall 21
    - Math 5565 - Mathematical Statistics
        Spring 22
    - Math 5953 - Independent Study
        Spring 22
- Bowling Green State University, OH, USA
    - Math 1150 - Introduction to Statistics (several sections)
- University of Nebraska at Omaha, NE, USA
    - Several lower-division undergraduate courses
- The Open University of Sri Lanka, Nawala, Sri Lanka
    - Upper- and lower-division undergraduate courses

Professional development

- FCE Certificate in High Impact Practices (HIPs) - Teaching & Learning Track, CSUSB Spring 2021
- FCE Certificate in Large Lectures in Distance Learning, CSUSB   July 27 - Aug 7, 2020
- ISSUES-X Summer Institute, CSUSB   July 13 -17, 2020

Services

- Science Olympiad - Bowling Green State University, OH, USA   March 09, 2019
- Participated Seven Day Service - University of Nebraska at Omaha, NE, USA   Fall 2014
- Worked as a volunteer at UNO's Global Study Conference   Fall 2014

- Representative of the Staff - Student Consultative Committee in the Faculty of Science, University of Peradeniya   2007 - 2008

Reviewer for the Journals

- *Entropy*
- *Journal of Applied Statistics*
- *Mathematics - MDPI*
- *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*

Professional Affiliations

- Mathematical Association of America   2014 - Present
- American Mathematical Society   2014 - Present
- Statistics Without Borders   2019 - Present

Technical Skills

- Operating platforms: Windows & Linux.
- Statistical Software: R, Python, SAS, JMP, Minitab, SPSS, Matlab.
- Application: LaTeX, GitHub.