Randall **Pruim**

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Education

University of Wisconsin — *Madison, WI*

PHD (MATHEMATICS) — *1995*

- Thesis: Weakly hard languages and Kuratowski-Ulam theorems for resource-bounded category

Calvin University — *Grand Rapids, MI*

BA (MATHEMATICS & GERMAN) — *1988*

Experience

Calvin University

CHAIR, MATHEMATICS AND STATISTICS (2014–) | PROFESSOR (2011–) | ASSOCIATE PROFESSOR (2003–11) | ASSISTANT PROFESSOR (1998–2003) — *1995 –*

University of Michigan

VISITING ASSOCIATE PROFESSOR — *2004 – 2005*

Boston University

VISITOR AND LECTURER — *1996 – 1998*

Providence College

SPECIAL LECTURER — *1995 – 1996*

Publications

Alford, K. R., Walls, L. K., DeRuiter, S. L., Pruim, R., VanHorn, J. E., Bone, M., … Wang, N. (2023). Reduction in diarrhoea rates after household water filter distribution in small and remote communities in liberia. *Cogent Public Health*, *10*(1), 2205716. https://doi.org/10.1080/27707571.2023.2205716

Pruim, R., Gîrjău, M.-C., & Horton, N. J. (2023). Fostering Better Coding Practices for Data Scientists. *Harvard Data Science Review*, *5*(3). *https://hdsr.mitpress.mit.edu/pub/8wsiqh1c*.

Alford, K. R., Rosendale, K. D., Koroma, A. H., DeRuiter, S. L., Pruim, R., VanHorn, J. E., … Wang, N. (2022). Evaluating filter functionality and user competence after a hollow fiber membrane filter intervention in Liberia. *Journal of Water, Sanitation and Hygiene for Development*, *12*(12), 851–861. https://doi.org/10.2166/washdev.2022.075

Gould, R., Peng, R. D., Kreuter, F., Pruim, R., Witmer, J., & Cobb, G. W. (2018). Challenge to the established curriculum: A collection of reflections. In *International handbook of research in statistics education* (pp. 415–432). https://doi.org/https://doi.org/10.1007/978-3-319-66195-7_13

Pruim, R. (2018). *Foundations and applications of statistics: An introduction using R* (2nd ed.). Available at https://www.ams.org/publications/authors/books/postpub/amstext-28

Heun, M. K., Santos, J., Brockway, P. E., Pruim, R. J., Domingos, T., & Sakai, M. (2017). From theory to econometrics to energy policy: Cautionary tales for policymaking using aggregate production functions. *Energies*, *10*(203), 1–44. https://doi.org/10.3390/en10020203

Pruim, R., Kaplan, D. T., & Horton, N. J. (2017). The mosaic package: Helping students to think with data using R. *R Journal*, *9*(1), 77. Available at https://journal.r-project.org/articles/RJ-2017-024/

Pruim, R. (2015). How statistics teaching has changed over the last 10 years. *AMSTAT News: The Membership Magazine of the American Statistical Association*, (459), 25–27.

Pruim, R. (2015). Review of Foundational and Applied Statistics for Biologists Using R by Ken A. Aho. *The American Statistician*, *69*(3), 245–246. Available at http://www.jstor.org/stable/24592059

Adams, J. C., & Pruim, R. (2012). Computing for STEM majors: Enhancing non CS majors' computing skills. *Proceedings of the 43rd ACM technical symposium on computer science education*, 457–462.

Dornbos, D. L., & Pruim, R. (2012). Moist Soils Reduce the Effectiveness of Glyphosate on Cut Stumps of Buckthorn. *Natural Areas Journal*, *32*(3), 240–246. https://doi.org/10.3375/043.032.0302

Pruim, R. (2012). Randomness and God's governance. In D. Haarsma & S. Hoezee (Eds.), *Delight in creation*. Available at https://ministrytheorem.calvinseminary.edu/wp-content/uploads/2016/06/9_pruim.pdf

Pruim, R. (2011). *Foundations and applications of statistics: An introduction using R*. Available at https://www.ams.org/publications/authors/books/postpub/amstext-13

Pruim, R. J., Welch, R. P., Sanna, S., Teslovich, T. M., Chines, P. S., Gliedt, T. P., … Willer, C. J. (2010). LocusZoom: Regional visualization of genome-wide association scan results. *Bioinformatics*, *26*(18), 2336–2337.

Adams, J., Matheson, S., & Pruim, R. (2008). BlastEd: Integrating biology and computation. *J. Comput. Sci. In Coll.*, *24*(1), 47–54.

Scott, L. J., Mohlke, K. L., Bonnycastle, L. L., Willer, C. J., Li, Y., Duren, W. L., … Boehnke, M. (2007). A genome-wide association study of type 2 diabetes in Finns detects multiple susceptibility variants. *Science*, 2649–2653. https://doi.org/10.1126/science.1142382

Willer, C. J., Scott, L. J., Bonnycastle, L. L., Jackson, A. U., Chines, P., Pruim, R., … Boehnke, M. (2006). Tag SNP selection for finnish individuals based on the CEPH utah HapMap database. *Genetic Epidemiology*, *30*(2), 180–190. https://doi.org/http://dx.doi.org/10.1002/gepi.20131

Wegener, I. (2005). *Complexity theory: Exploring the limits of efficient algorithms* (p. xii+308). Berlin: Springer-Verlag. *Translated from the German by Randall Pruim.*

Pollett, C., & Pruim, R. (2002). Strengths and weaknesses of LH arithmetic. *MLQ Math. Log. Q.*, *48*(2), 221–243.

Fenner, S., Homer, S., Pruim, R., & Schaefer, M. (2001). Hyper-polynomial hierarchies and the polynomial jump. *Theoret. Comput. Sci.*, *262*(1-2), 241–256.

Green, F., & Pruim, R. (2001). Relativized separation of EQP from P^NP. *Inform. Process. Lett.*, *80*(5), 257–260. https://doi.org/10.1016/S0020-0190(01)00176-4

Pruim, R. (2000). Review of Hilbert's Tenth Problem by Yttri Matiyasevich. *SIGACT News*, *31*(1), 4. https://doi.org/http://doi.acm.org/10.1145/346048.568465

Fenner, S., Green, F., Homer, S., & Pruim, R. (1999). Determining acceptance possibility for a quantum computation is hard for the polynomial hierarchy. *R. Soc. Lond. Proc. Ser. A Math. Phys. Eng. Sci.*, *455*(1991), 3953–3966.

Fenner, S., Green, F., Homer, S., & Pruim, R. (1998). Quantum NP is hard for PH. In *Theoretical computer science (Prato, 1998)* (pp. 241–252). World Sci. Publ., River Edge, NJ.

Schöning, U., & Pruim, R. (1998). *Gems of theoretical computer science* (p. x+320). Berlin: Springer-Verlag. *Translated from the 1995 German original and revised by Pruim.*

Fenner, S., Homer, S., Pruim, R., & Schaefer, M. (1997). Hyper-polynomial hierarchies and the NP-jump. In *Proceedings of the twelfth Annual IEEE Conference on Computational Complexity (Ulm, 1997)* (pp. 102–110). Washington, DC, USA: IEEE Computer Soc., Los Alamitos, CA.

Joseph, D., Pruim, R., & Young, P. (1994). Collapsing degrees in subexponential time. *Proceedings of IEEE 9th annual conference on structure in complexity theory*, 367–382. IEEE.

Invited and Conference Presentations

Three-course dinner or Thanksgiving feast? Putting the pieces together in a modern math/stat sequence. (2022). Invited Paper, Joint Statistical Meetings.

Random thoughts. (2021). ACMS Lecture at 2021 Joint Mathematics Meetings: Association of Christians in the Mathematical Sciences.

GAISE for majors. (2020). Invited Paper, Joint Statistical Meetings.

Clean water for Liberia. (2019). Biennial Meeting of the Association of Christians in the Mathematical Sciences. *With S. De Ruiter and M. Bone.*

Domino arithmetic. (2019). MathPath Plenary Talk, Grand Valley State University.

Less volume, more creativity: R for busy humans. (2019). Biennial Meeting of the Association of Christians in the Mathematical Sciences.

Mixing D3 and R. (2019). Big Data Ignite.

Creating R packages with RStudio and GitHub. (2018). West Michigan R Users Group.

ggformula: A less volume, more creativity approach to data viz in R. (2018). Electronic Conference on Teaching Statistics.

Less volume, more creativity: Picking your R (starter) toolkit. (2018). Big Data Ignite.

Less volume, more creativity: An introduction to the mosaic suite of R packages. (2015). University of Auckland.

A mathematician teaches statistics: Tales from the front lines. (2013). Convener of an invited panel at MathFest.

How a little linear algebra can go a long way in the Math Stat course. (2013). Joint Mathematics Meetings.

The other intro course: Combining foundations, applications, and computation in the Math Stat course. (2013). Joint Mathematics Meetings.

Toward big data in teaching statistics. (2013). Invited panelist Joint Statistical Meetings.

Using R in intro stats: Less volume, more creativity. (2013). Break out session at 2013 US Conference on Teaching Statistics.

A mosaic sampler. (2011). UseR! Conference.

Alumni panel. (2011). SC11 International Conference for High Performance Computing, Networking, Storage; Analysis Education Program.

Golf balls in the yard: Using simulation to teach hypothesis testing. (2011). Available at `http://www.causeweb.org/webinar/activity/2011-01/`

Madly rating and ranking. (2011). Annual Meeting of the Michigan Section of the Mathematical Association of America.

Teaching statistics using R. (2011). Roundtable at the Joint Statistical Meetings.

Technology changes things. (2011). Michigan NExT invited talk.

Toward a MOSAIC R package for calculus and statistics. (2011). Project MOSAIC M-cast (webinar).

Can sage replace maple and mathematica? (2010). Michigan Section MAA.

Domino arithmetic. (2010). Aquinas College Mathematics Colloquium.

Math and bio in 2010. (2010). Invited panel presentation at MAA MathFest.

What is sage and what should I use it for? (2010). Available at `http://mosaic-web.org/KickOff/Presentations/sagetalk.pdf`. *Part of the Project MOSAIC Kick-Off Workshop*.

What should a modern mathematical statistics course look like? (2010). Michigan Section MAA.

"BlastEd: An exemplar for interdisciplinary learning and curriculum development. (2008). HHMI Quantitative Biology Workshop.

Calculus the way it might have been: An introduction to non-standard analysis. (2008). Central Michigan University Mathematics Colloquium.

Visualization of data using R. (2008). Invited presentation at the University of Michigan Genome Science Training Program annual retreat.

Calculus the way it might have been: An introduction to non-standard analysis. (2007). Upper Peninsula Section Meeting (Michigan MAA).

Calculus the way it might have been: An introduction to non-standard analysis. (2007). Hope College Mathematics Colloquium.

Some things quantum computers can and can't do. (2004). University of Ulm Theoretical Computer Science Seminar.

From paradox to primes: An introduction to Kolmogorov complexity. (2003). Kalamazoo College Mathematics Colloquium.

A few of my favorite (technological) things. (2002). Michigan NExT Symposium.

Math on the web. (2002). Christian Educators Association.

Statistical top n lists. (2002). Christian Educators Association.

From paradox to primes: An introduction to Kolmogorov complexity. (2001). Hope College Mathematics Colloquium.

Using the internet effectively to teach mathematics: Advice, recommendations, examples, and things you should know. (2001). Michigan NExT Symposium.

Web resources for teaching statistics. (2000). Mathematics-in-Action Conference.

How to multiply. (1999). Hope College Mathematics Colloquium.

Mastermind, super-mastermind, and super-duper mastermind: Strategies for humans and computers. (1998). Hudson River Undergraduate Mathematics Conference.

How to exchange and share presents. (1996). Pi Mu Epsilon Mathematics Honor Society invited address, Providence College.

What is computational complexity theory? (1996). Pi Mu Epsilon Mathematics Honor Society; MAT Subfields of Mathematics Series invited address, Providence College.

Mathematics for liberal arts courses. (1995). Biennial Meeting of the Association for Christians in the Mathematical Sciences. *Panelist.*

Collapsing degrees in sub-exponential time. (1994). Structure in Complexity Theory Conference, Amsterdam. *July 1994*.

Workshops

Shiny from start to finish. (2020). *RStudio::conf. Assisted in workshop led by D Kaplan.*

MAA minicourse: Keep teaching statistics using R. (2019). Available at `https://rpruim.github.io/JMM2019/`. *Joint Mathematics Meetings. With S. Kuiper.*

MAA minicourse: Start teaching statistics using R. (2019). Available at `https://rpruim.github.io/JMM2019/`. *Joint Mathematics Meetings. With S. Kuiper.*

North Park faculty development workshop: R for data science. (2019). Available at `https://rpruim.github.io/NorthPark2019/`. *North Park University. A 3-day workshop for faculty.*

Stan Workshop. (2019). Available at `https://rpruim.github.io/StanWorkshop/`. *Calvin University. Organized and hosted a (sold-out) workshop run by J. Sol-Gabry (Stan core development team) and V. Leos Barajas.*

StatPREP workshops. (2019). Available at `https://statprep-workshops-2019.netlify.app/`. *Howard Community College – June 2019, Highline Community College – June 2018, St Catherine University – June 2018. These 2-day workshops were funded by a grant from the National Science Foundation. Each workshop had 3–5 presenters.*

Grinnell data science workshop for faculty. (2018). *Grinnell College. With D. Kaplan.*

MAA minicourse: Teaching statistics using R and RStudio. (2018). *Joint Mathematics Meetings. NA.*

Using R in clinical practice and research. (2018). *City of Hope Comprehensive Cancer Center. 1-day workshop for clinicians and researchers.*

Computation and Visualization Consortium Faculty Workshops. (2017). Available at `https://cvc-workshops.netlify.app/`. *Macalester College – June 2017, Pomona Collage – June 2016, Smith College – July 2015, Macalester College –*

July 2014, Calvin College – June 2013. These week-long annual workshops were funded by a grant from the Howard Hughes Medical Institute. Each workshop had 2–4 presenters.

MAA minicourse: Teaching statistics with R and RStudio. (2017). *Joint Mathematics Meetings. With D. Kaplan.*

Tidyverse data wrangling workshop. (2017). *Big Data Ignite. NA*.

Shiny workshop: Creating interactive web applications in R. (2016). *Big Data Ignite. NA*.

R day workshop. (2015). *Strata + Hadoop World NYC. Assisted in a workshop led by Garret Grolmund, Yui Xie, and Nathan Stephens.*

Functions, parameters, and fitting for teaching calculus. (2013). *NA. 1-day workshop prior to Joint Mathematics Meetings.*

Modeling in calculus: Early and often. (2013). *Caldwell, ID. MAA PREP Workshop. With D. Kaplan, K.-D. Crisman, E. Marland.*

Teaching statistics with R. (2013). *NA. 3-day Workshop prior to 2013 US Conference on Teaching Statistics. With D. Kaplan and N. Horton.*

Modeling in calculus: Early and often. (2012). *Calvin College. 1-week MAA PREP Workshop, July 2012. With D. Kaplan, E. Marland, K.-D. Crisman, and N. Horton.*

Teaching modeling in calculus. (2012). *NA. 1-day Workshop prior to Joint Mathematics Meetings. With D. Kaplan, E. Marland, K.-D. Crisman, and N Horton.*

Teaching statistics using R. (2011). *US Conference on Teaching Statistics. 3-day Workshop. With D. Kaplan and N. Horton.*

Using R for undergraduate research in statistical genetics. (2010). *Hope College. An afternoon workshop for faculty and students.*

R dump. (2008). *National Institutes of Health. A two-day workshop on using R for researchers at the National Institutes of Health.*

Packages Available on CRAN

mosaic (1.8.4.2): *Project MOSAIC Statistics and Mathematics Teaching Utilities* – Data sets and utilities from Project MOSAIC (`http://www.mosaic-web.org`) used to teach mathematics, statistics, computation and modeling. Funded by the NSF, Project MOSAIC is a community of educators working to tie together aspects of quantitative work that students in science, technology, engineering and mathematics will need in their professional lives, but which are usually taught in isolation, if at all. Role: author/maintainer. Last update: 2022.

ggformula (0.10.4): *Formula Interface to the Grammar of Graphics* – Provides a formula interface to 'ggplot2' graphics. Role: author/maintainer. Last update: 2023.

mosaicCore (0.9.2.1): *Common Utilities for Other MOSAIC-Family Packages* – Common utilities used in other MOSAIC-family packages are collected here. Role: author/maintainer. Last update: 2022.

mosaicData (0.20.3): *Project MOSAIC Data Sets* – Data sets from Project MOSAIC (`http://www.mosaic-web.org`) used to teach mathematics, statistics, computation and modeling. Funded by the NSF, Project MOSAIC is a community of educators working to tie together aspects of quantitative work that students in science, technology, engineering and mathematics will need in their professional lives, but which are usually taught in isolation, if at all. Role: author/maintainer. Last update: 2022.

NHANES (2.1.0): *Data from the US National Health and Nutrition Examination Study* – Body Shape and related measurements from the US National Health and Nutrition Examination Survey (NHANES, 1999-2004). See `http://www.cdc.gov/nchs/nhanes.htm` for details. Role: author/maintainer. Last update: 2015.

abd (0.2.8): *The Analysis of Biological Data* – The abd package contains data sets and sample code for The Analysis of Biological Data by Michael Whitlock and Dolph Schluter (2009; Roberts & Company Publishers). Role: author. Last update: 2015.

mosaicCalc (0.6.0): *R-Language Based Calculus Operations for Teaching* – Software to support the introductory *MOSAIC Calculus* textbook `https://www.mosaic-web.org/MOSAIC-Calculus/`), one of many data- and modeling-oriented educational resources developed by Project MOSAIC (`https://www.mosaic-web.org/`). Provides symbolic and numerical differentiation and integration, as well as support for applied linear algebra (for data science), and differential equations/dynamics. Includes grammar-of-graphics-based functions for drawing vector fields, trajectories, etc. The software is suitable for general use, but intended mainly for teaching calculus. Role: author. Last update: 2022.

mosaicModel (0.3.0): *An Interface to Statistical Modeling Independent of Model Architecture* – Provides functions for evaluating, displaying, and interpreting statistical models. The goal is to abstract the operations on models from the particular architecture of the model. For instance, calculating effect sizes rather than looking at coefficients. The package includes interfaces to both regression and classification architectures, including lm(), glm(), rlm() in 'MASS', random forests and recursive partitioning, k-nearest neighbors, linear and quadratic discriminant analysis, and models produced by the 'caret' package's train(). It's straightforward to add in other other model architectures. Role: author. Last update: 2017.

fastR2 (1.2.2): *Foundations and Applications of Statistics Using R (2nd Edition)* – Data sets and utilities to accompany the second edition of "Foundations and Applications of Statistics: an Introduction using R" (R Pruim, published by AMS, 2017), a text covering topics from probability and mathematical statistics at an advanced undergraduate level. R is integrated throughout, and access to all the R code in the book is provided via the snippet() function. Role: author/maintainer. Last update: 2022.

Lock5withR (1.2.2): *Datasets for 'Statistics: Unlocking the Power of Data'* – Data sets and other utilities for 'Statistics: Unlocking the Power of Data' by Lock, Lock, Lock, Lock and Lock (ISBN : 978-0-470-60187-7, `http://lock5stat.com/`). Role: author/maintainer. Last update: 2015.

I also maintain several other packages, mostly for use in courses or for personal use (sometimes shared with colleauges) on GitHub. These include **CalvinBayes**, **CalvinData**, **leaflethex** (largely implemented by a student I supervised), **daily**, **grading**, and **webwork**.

Courses Taught

- At Calvin: CS 260 (Automata Theory) ● CS 360 (Complexity and Computability) ● Data 303 (Applied Modeling and Visualization) ● Math 100 (Mathematics in the Contemporary World) ● Math 132 (Calculus for Management, Life, and Social Sciences) ● Math 156 (Discrete Mathematics for Computer Science) ● Math 171 (Calculus I) ● Math 172 (Calculus II) ● Math 221 (The Real Number System and Methods for Elementary School Teachers) ● Math 232 (Engineering Mathematics) ● Math 251 (Discrete Mathematics I) ● Math 252 (Discrete Mathematics II) ● Math 312 (Logic, Computability, and Complexity) ● Math 361 (Real Analysis I) ● Math 362 (Real Analysis II) ● Math 381 (Mathematical Logic) ● Stat 143 (Introduction to Probability and Statistics) ● Stat 145 (Biostatistics) ● Stat 241 (Engineering Statistics) ● Stat 243 (Statistics) ● Stat 341 (Computational Bayesian Statistics) ● Stat 343 (Probability and Statistics) ● Stat 343 (Mathematical Statistics) ● Stat W82 (Visualize This! with D3) ● MGMT 535 (Statistical Analysis)
- For The Institute for Statistics Education (statistics.com): Visualization in R with ggplot2
- At University of Michigan: Biostatistics (for graduate students in public health)
- At Boston University: Accelerated Intro Programming and Data Structures in C
- At Providence College: Mathematics for the Liberal Arts

Some Teaching Materials Available Online

Below are a few examples of materials assembled for teaching that are available online.

Integrated ethics labs. (2022). Available at `https://integratedethicslabs.org/`. *I'm the webmaster for this site which curates materials that can be used to teach ethics throughout the computer science, statistics, and data science curriculum. The materials are produced by the Integrated Ethics Team, led by Catherine Crockett and Lori Carter.*

Kaplan, D. T., & Pruim, R. (2022). *Statistical modeling: A fresh approach*. Available at `https://statistical-modeling.netlify.app/`. *Modified version of a text by D. Kaplan used in an online MBA course at Calvin University.*

Pruim, R. (2022). *Worksheets for math 252: Discrete mathematics II*. Available at https://rpruim.github.io/m252/S22/from-class/. *These worksheets are used by students in groups of 3-4 throughout a semester-long course covering graph theory, counting and probability, and models of computation.*

Pruim, R. (2021). *Computational Bayesian statistics dope sheets*. Available at https://rpruim.github.io/s341/S21/from-class/dope.html. *Notes, code examples, etc. related to a course on Bayesian methods. Includes links to other course materials.*

Pruim, R. (2021). *Statistics for the physical sciences and engineering*. Available at https://rpruim.github.io/Engineering-Statistics/. *Text and Worksheets for a 2-hour course taken mainly by engineering students at Calvin University*.

Pruim, R. (2019). *(Re)Doing Bayesian Data Anlaysis*. Available at https://rpruim.github.io/Kruschke-Notes/. *A companion to Doing Bayesian Data Analysis (Krushchke) demonstrating a different coding toolkit and style.*

Horton, N. J., Pruim, R., & Kaplan, D. T. (2015, November). *A student's guide to R* (1.2 ed.). Available at https://github.com/ProjectMOSAIC/LittleBooks/blob/master/StudentGuide/Studentguide2015-11-09.pdf

Pruim, R., Horton, N. J., & Kaplan, D. T. (2015, November). *Start teaching with R* (1.1 ed.). Available at https://github.com/ProjectMOSAIC/LittleBooks/blob/master/Starting/MOSAIC-StartTeaching.pdf

Awards and Grants

NSF S-STEM: Expanding Computation for Interdisciplinary Science *$600 K*

PI with co-PIs J. Adams, D. Benson, S. Nelesen, R. DeJong *2012–2016*

- This grant funded scholarships of up to $8000 annually and other support for Calvin students studying science and computation.

NSF TUES: Leveraging Laboratory Activities to Achieve Educational Reform *$200 K*

co-PI with D. Koetje (PI), A. Wilstermann, H. Fynewever, and R. Van Dragt *2012–15*

- This grant supported work to produce new laboratory materials for the introductory biology sequence.

NSF ARI-R2: Integrated Science Research Experimental Laboratory *$951 K*

co-PI with D. Benson (PI), D. DeHeer, M. Walhout, and C. Tatko *2010–11*

- This NSF grant funded the remodeling of the laboratory space on the ground level of the Science Building.

NSF S-STEM: Computation for Interdisciplinary Science *$581 K$*

PI with co-PIs J. Adams, D. DeHeer, D. Koetje, and K. Vander Linden *2009–13*

- This grant funded scholarships of up to $8000 annually to Calvin students studying science and computation.

NSF CCLI, Phase II: Building a Community around Modeling, Statistics, Computation, and Calculus *$275 K*

co-PI with D. Kaplan (PI), N. Horton, and E. Marland *2009–12*

- This grant funded an initiative called Project MOSAIC. http://mosaic-web.org/

Howard Hughes Medical Institute grant *$1.1 M*

co-PI and Director of Integrated Science Research Institute *2008-12*

- This granted funded several initiatives across STEM at Calvin

Fulbright scholar at the Universität Heidelberg

Graduate Student *1990-91*

- I spent my third year of graduate school in Heidelberg

Selected Service Roles

Big Data Ignite

Stearing Committee and Conference Programming Committee co-Chair *2017–*

- Big Data Ignite is local non-profit that hosts events regionally for practitioners of data science (big data, IoT, and cloud computing) in industry and education. The main event is an annual 3-day in-person meeting. Due to the pandemic, we have offered virutal events instead the last couple of years. We hope to resume an in-person multi-day event in 2023.

American Statistical Association and Mathematical Association of America

Member, Joint Committee for Statistics Education *2016–18*

Calvin University

Chair, Department of Mathematics and Statistics *2014–*

- I also serve as co-Director of Calvin's data science programs.

SIGMAA (Special Interest Group of the MAA) for Statistics Education

Vice Chair, Chair, and Past-Chair *2012–15*

- Proposed and organized sessions at annual MAA Meetings (Joint Mathematics Meetings and SummerFest); member of awards committee for SIGMAA StatEd awards.

Michigan Section of the MAA

Michigan Section Executive Committee *2006–09*

- Served as Vice Chair, Chair, Past Chair, and Program Committee Chair for the annual meeting

Michigan Section of the MAA

Michigan Undergraduate Mathematics Conference organizing committee *2002–03*

- Served as chair of both the conference committee and the program committee in 2002.

Languages

English native speaker

German near native fluency; transalted two theoretical computer science books from German into English