Calvin Williamson

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Education

Ph.D. Mathematics, University of Michigan, Ann Arbor, MI, 1985

B.A. Mathematics, University of South Florida, Tampa, FL, 1979

Teaching Experience

Professor, Science and Mathematics Dept, Fashion Institute of Technology, SUNY, New York, NY, 2015-present

- Taught undergraduate mathematics:

  - Calculus (MA331)
  - Predictive Analytics (MA329)
  - Data Analysis for Business Applications (MA321)
  - Statistics, Machine Learning, and Data Mining (MA322)
  - Statistical Analysis (MA222)
  - Mathematical Ideas (MA161)

- Taught undergraduate computer science:

  - Large Language Models, Artificial Intelligence, and Data Science (CS211)
  - Programming and Mobile Apps (MA153)

- Taught undergraduate science:

  - Light and Color (SC332)
  - Color Science Laboratory (SC032)

Assistant and Associate Professor, Science and Mathematics Dept, Fashion Institute of Technology, SUNY, New York, NY, 2003-15

Adjunct Assistant Professor, Dept of Mathematics, Baruch College, CUNY, New York, NY, 1991-93

- Taught undergraduate mathematics: Business Calculus, Linear Algebra, and PreCalculus.
- Helped establish computer lab for mathematics students using Mathematica, Maple, and other mathematics software.

Assistant Professor, Dept of Mathematics, University of Missouri, Columbia, MO, 1985-90

- Taught undergraduate mathematics: Honors Calculus, Differential Equations, and Linear Algebra.
- Taught graduate mathematics: Partial Differential Equations.
- Counseled undergraduate math majors in course of study.

Teaching Assistant, Dept of Mathematics, University of Michigan, Ann Arbor, MI, 1979-85

- Taught undergraduate mathematics: Calculus, Differential Equations, and Linear Algebra.

Software Developer

Improv Technologies, New York, NY 2000-02

- Worked on Cirquet, a Java distributed component technology for building and deploying distributed applications and web services.

Rhythm & Hues Animation Studios, Los Angeles, CA, 1998-2000 and 1994-96

- Developed high color resolution version of the General Image Manipulation Program, a paint program for use at Rhythm & Hues for film and video production.

Random Noise, San Francisco, CA, 1996-97

- Worked on Coda, a graphical layout design tool for web designers.

XaosTools, San Francisco, CA, 1994

- Invented and developed Terrazzo, a software program for use by artists and designers for creating patterns, symmetries and tilings. Terrazzo was sold by XaosTools as an Adobe Photoshop compatible plug-in.

Awards

SUNY Chancellor's Award for Excellence in Teaching, 2012

Publications

Using Cloud Tools for Literate Programming to Redesign an AI Course for Non-Traditional College Students (with Maria Hwang), Proceedings of the AAAI Conference on Artificial Intelligence, (2020), 34(09), 13502-13503. (pdf)

A Phase Cell Cluster Expansion, Annals of Physics 175 (1987), 31

A Phase Cell Approach to Yang-Mills, II Analysis of a Mode (with Paul Federbush), Journal of Mathematical Physics 28(6), (1987), 1416

OER Textbooks

Intro Statistics (with Jennifer Shloming) 2023

Websites/Repos

BusMgmtBenchmarks

- Project to support data analysis of retail financial 10K data.
- Github repo

Retail Data Creation

- Project to support realistic retail data creation for Fashion Business Management courses at FIT.

Statplosion

- Project to support programatic creation of problems for OER textbook in statistics.
- Gitlab repo

Mathplosion

- Project to support rapid content creation for statistics.
- Bitbucket repo

Invited Conference Talks

Creating an Ideal Textbook with Your Students In Mind (co-presented with Jennifer Shloming): presented at the International Conference on Technology in Collegiate Mathematics (ICTCM 2025), San Diego, CA, Mar 2025

Creating an Ideal OER Textbook for Your Students (co-presented with Jennifer Shloming): presented at the Conference on Instruction and Technology (CIT), Buffalo, NY, May 2024

Creating an Ideal OER Textbook for Your Students (co-presented webinar with Jennifer Shloming) for National Distance Learning Week (NDLW), Nov 2023

Using Cloud Tools for Literate Programming to Redesign an AI Course for Non-Traditional College Students (co-presented with Maria Hwang) at Tenth AAAI Symposium on Educational Advances in Artificial Intelligence (EAAI-20), Feb 2020

Graphplosion – Simple Graphs for Algebra (co-presented with Jennifer Shloming) – talk given at International Conference on Technology in Collegiate Mathematics (ICTCM), Chicago, IL, Mar 2017

Rapid Creation of Graphs for Algebra – Jazz Up Your Course (co-presented with Jennifer Shloming) – talk given at Conference of the American Mathematical Association of Two Year Colleges (AMATYC), New Orleans, LA, Nov 2015

Mobile First Math Content with Mathplosion (co-presented with Jennifer Shloming) – talk given at International Conference on Technology in Collegiate Mathematics (ICTCM), Las Vegas, NV, Mar 2015

Course Content With a Bang (co-presented with Jennifer Shloming) – talk given at International Conference on Technology in Collegiate Mathematics (ICTCM), Boston, MA, Mar 2013

Rapid Content Generation for Algebra and Statistics (co-presented with Jennifer Shloming) – talk given at Conference of the American Mathematical Association of Two Year Colleges (AMATYC), Jacksonville, FL, Nov 2012

Mathplosion, Rapid Content Generation for Mathematics (co-presented with Jennifer Shloming) – talk given at Conference on Instructional Technology (CIT), Stony Brook, NY, Jun 2012

Rapid Content Generation for Mathematics – talk given at International Conference on Technology in Collegiate Mathematics (ICTCM), Orlando, FL, Mar 2012

Rapid Content Generation for Mathematics (co-presented with Jennifer Shloming) – talk given at Conference of the American Mathematical Association of Two Year Colleges (AMATYC), Austin, TX, Nov 2011

The Power of Google Docs for Effective Online Course Management (Co-presented with George M. Alexander) – talk given at Conference of the American Mathematical Association of Two Year Colleges (AMATYC), Boston, MA, Nov 2010

A Simpler Way of Doing Mathematics Equations Online – talk given at Conference of the American Mathematical Association of Two Year Colleges (AMATYC), Las Vegas, NV, Nov 2009

A Simpler Way of Doing Mathematics Equations Online – talk given at SUNY Conference on Instructional Technology (CIT), Oswego, NY, May 2009

Coursecasting Your Office Hours – talk given at SUNY Conference on Instructional Technology (CIT), Plattsburgh, NY, May 2007

WordChunks: A New and Exciting Way to Generate Exams and Organize Course Material – talk given at Conference on Instructional Technology (CIT), Fredonia, NY, May 2006

Digital Images and Teaching Mathematics – talk given at Conference of Instructional Technologies (CIT), SUNY Binghamton, NY, May 2005

Delivering Visual Mathematics Using Technology – talk given at Conference of the American Mathematical Association of Two Year Colleges (AMATYC), Orlando, FL, Nov 2004

Why is it So Difficult to Make Things Simple? (Co-presented with Patrick Writt) – talk given at Conference on Instructional Technologies (CIT), Stony Brook, NY, Jun 2004

Teaching Mathematics Inspired by Computer Graphics – talk given at School of Visual Arts Seventeenth Annual National Conference on Liberal Arts and the Education of Artists, NYC, Oct 2003