

# Thomas W. Miller, PhD

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Online resume: <https://www.linkedin.com/in/thomas-w-miller>

Residence: Glendale, California 91205

## SKILLS

- Research methods and data science
- Market and economic analysis, forecasting
- Software engineering
- Writing, editing, publishing

## EXPERIENCE

Editor-in-Chief, *Data Science Quarterly*, In development

- Promotes the discipline of data science by publishing original research, case studies, opinions, and reviews of software, systems, and other publications.
- Online and downloadable electronic versions will be available in 2025

Faculty Director, Data Science and Assistant Professor of Instruction

Northwestern University, School of Professional Studies, June 2011–Current

Evanston, Illinois

- Data science course development and teaching. Teaching in 2024–25: Data Engineering with Go, Knowledge Engineering, Decision Analytics, and Data Science Capstone.
- Taught in previous years: Natural Language Processing, Unsupervised Learning Methods, Previous courses taught: Practical Machine Learning, Artificial Intelligence and Deep Learning, Web and Network Data Science, Web Information Retrieval and Real-Time Analytics, Marketing Analytics, Applied Statistics with R, Advanced Modeling Techniques, Data Visualization, Data and Text Visualization, Introduction to Statistical Analysis, Introduction to Predictive Analytics and Data Collection, Predictive Analytics Capstone Course, Analytics Consulting, Analytics Entrepreneurship, Sports Research Methods and Quantitative Analysis, Sports Performance Analytics, Sports Management Analytics.
- Courses in development: Capstone for Data Engineering, Programming with Data (data structures supported by Apache Arrow).

Owner, Research Publishers LLC, September 2002–Current

Manhattan Beach, California

- Print and online publishing of books and periodicals, data science consulting and research, measurement services, knowledge engineering with Competitor360™, prediction surveys and political research services under The Virtual Tout®, <https://virtualltout.com/>

Consulting Editor, Pearson Education, New York, January 2014–January 2016

Member/owner of worker cooperative, information systems and business consultant  
Union Cab Cooperative of Madison, August 2007–August 2012

- Financial analysis, predictive modeling, information technology projects.

Adjunct Faculty, Instructor, Madison College, August 2006–December 2011  
Madison, Wisconsin

- Courses taught: Economics, Microeconomics, Macroeconomics, Business Statistics, Introduction to Psychology.

Associate Faculty, University of Phoenix Online, June 2005–March 2008

- Courses taught: Research and Evaluation, Advanced Problems in Statistics, Statistics and Research Methods for Managerial Decisions.

Director, A.C. Nielsen Center for Marketing Research and Lecturer, Marketing Department,  
University of Wisconsin-Madison, August 1995–June 2003

- Courses taught: Marketing Research, Experimental Research in Marketing, Advanced Topics in Marketing Research, Marketing Strategy, and Sales Management.

Faculty Associate, Marketing Department, January 1999–June 2003

Director, University of Wisconsin, August 1995–June 2003

Lecturer, Marketing Department, August 1995–December 1998

Director and Instructor, Beloit College, January 1995–July 1995  
Beloit, Wisconsin

- The Language of Business Program Responsibilities: Program development, administration, and teaching.

Adjunct Assistant Professor, University of Oregon, January 1993–December 1994  
Eugene, Oregon

- Departments of Economics, Accounting, and Decision Sciences Courses taught: Intermediate Microeconomic Theory Introduction to Econometrics Introduction to Management Accounting Theory of Industrial Organization Accounting Information Systems Management Information Systems.

Instructor, Oregon State University, June 1993–August 1993  
Corvallis, Oregon

- Course: Computer-Intensive Statistical Methods.

Hewlett-Packard, January 1983–January 1990

Field Engineer and Sales Representative, St. Paul Minnesota and Bellevue, Washington  
Served major accounts, including 3M, Boeing, the United States Navy and the State of Washington. Also served new business accounts in Washington.

NCR, June 1980–August 1982, St. Paul, Minnesota

Network Engineer, January 1980–January 1981 Network modeling, capacity planning, programming, consulting, sales support.

Marketing Analyst, January 1981–January 1982

University of Minnesota, July 1977–June 1980  
Minneapolis

Research Associate, Measurement Services Center, January 1977–January 1980

- Measurement research, project management, database and statistical consulting, systems analysis.

Hamline University, August 1973–May 1977  
St. Paul, Minnesota

Assistant Professor, Department of Psychology, January 1975–January 1977

Instructor, Department of Psychology, January 1973–January 1975

Courses: General Psychology Cognitive Processes, Developmental Psychology Experimental Psychology, Experimental Aesthetics Information Processing, Personality Theory and Research Tests and Measurements, Quantitative Methods Research Design and Method Computer Utilization.

University of Minnesota, January 1969–June 1973, January–March 1978  
Minneapolis

Research Assistant, University of Minnesota, January 1969–June 1973

Instructor, Department of Psychology, University of Minnesota, January 1971–January 1973  
Course: Introduction to Measurement and Statistical Methods

Graduate Teaching Assistant, Statistics, University of Minnesota, January–March 1978  
Course: Exploratory Data Analysis.

## **EDUCATION AND TRAINING**

### Degrees

#### Ph.D.

Psychology (Psychometrics), University of Minnesota, Minneapolis, MN December 1974

Thesis: Rate and Accuracy in Test-Taking Behavior

#### Master of Science

Statistics, University of Minnesota, Minneapolis, MN December 1992

Project: An Evaluation of Tree-Structured Classification Techniques

#### Master of Science

Economics, University of Oregon, Eugene, OR December 1992,

Master's Thesis: Response Model of Entry and Exit

#### Master of Business Administration

General Business, University of Oregon, Eugene, OR June 1992

#### Bachelor of Arts

Liberal Arts, Ursinus College, Collegeville, PA June 1968

Departmental Honors in Philosophy: The Political Philosophy of Bertrand Russell

### Certificates and Additional Training

#### Certificate in Editing

University of Chicago, Chicago, IL August 2005

#### Primary Certificate in Rational Emotive Behavior Therapy

Albert Ellis Institute, New York, NY July 2009

#### Full Stack Web Development Coding Boot Camp

University of California, Los Angeles, CA July 2017

#### Rasa Certified Web Developer

Rasa Technologies Inc., March 2020

#### Programming with Google Go Certification

University of California, Irvine and Coursera, September 2021

Introduction to WebAssembly Certification, The Linux Foundation, November 2021

## ACTIVITIES AND HONORS

University of Oregon Department of Economics, Chiles Foundation Academic Scholarship Member. Association for Computing Machinery, Society of Professional Journalists Referee for Research Papers Competition (2016–Present) Annual MIT Sloan Sports Analytics Conference

Award Winner. David K. Hardin Award, American Marketing Association, Best article in, Marketing Research 2001, "Can We Trust the Data of Online Research"

## PUBLICATIONS

Miller, Thomas W. 2020. "Measurement, Meaning, and Prediction in Sports," In Christophe Ley and Yves Dominicy (eds.), *Science Meets Sports: When Statistics are More Than Numbers*, 53–80. Cambridge, UK: Cambridge Scholars Publishing.

Miller, Thomas W. 2016. *Sports Analytics and Data Science: Winning the Game with Methods and Models*, Old Tappan, N.J.: Pearson Education/FT Press.

Miller, Thomas W. 2015. *Marketing Data Science: Modeling Techniques in Predictive Analytics with R and Python*, Upper Saddle River, N.J.: Pearson Education/FT Press.

Miller, Thomas W. 2015. *Web and Network Data Science: Modeling Techniques in Predictive Analytics*, Upper Saddle River, N.J.: Pearson Education/FT Press.

Miller, Thomas W. 2015. *Modeling Techniques in Predictive Analytics with Python and R: A Guide to Data Science*, Upper Saddle River, N.J.: Pearson Education/FT Press.

Miller, Thomas W. 2015. *Modeling Techniques in Predictive Analytics: Business Problems and Solutions with R* (Revised and Expanded Edition), Upper Saddle River, N.J.: Pearson Education/FT Press.

Miller, Thomas W. 2008. *Without a Tout: How to Pick a Winning Team*, Madison, Wisc.: Research Publishers.

Miller, Thomas W. 2008. *Research and Information Services: An Integrated Approach for Business*, Madison, Wisc.: Research Publishers.

Miller, Thomas W. 2005. *Data and Text Mining: A Business Applications Approach*, Upper Saddle River, N.J.: Pearson Education/Prentice Hall.

Miller, Thomas W. and Walkowski, J., eds. 2004. *Qualitative Research Online*, Madison, Wisc.: Research Publishers.