

Thomas Tiahart

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Beacom School of Business
The University of South Dakota

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Education

Ph.D., Computational Science and Statistics, The University of South Dakota.

M.A., Computer Science, The University of South Dakota.

B.S.B.A., Accounting, The University of South Dakota.

Research

Peer Reviewed Journal Publications

South-Winter, Carole and Thomas Tiahart. *Opening Health Care Clinics in the Developing World*. (2018).
Global Journal of Business Disciplines.

Porter, Jason C. and Thomas Tiahart. *That's a Wrap: Evaluating Different Methods for Creating
Video Lectures*. (2016). Business Education Innovation Journal, 8 (1), 56-66.

Tiahart, Thomas and Jason C. Porter. *What Do I Do with this Flipping Classroom: Ideas for Effectively
Using Class Time in a Flipped Course*. (2016). Business Education Innovation Journal, 8 (2), 85-91.

Theses

Ph.D. Dissertation: *Bitwise-AND Sifting Set Intersection Trees* – Algorithm and data structure using
a non-comparison approach to the solution of the set intersection problem. Replaces
individual element selection with bitwise elimination of either elements or subtrees, reducing
search complexity by resolving intersections set by set instead of element by element.

Master's Thesis: *A Decision Support Forecasting Tool for a Temporal Database* – Integrated three forecasting
models into a simulated temporal database.

Patents

US Patent **6,741,979**; *System and method for flexible indexing of document content*, May 25, 2004.
Inventors: **Tiahart; Thomas W.**

Patents Referencing US Patent **6,741,979** as prior art for their patents:

US Patent 9,864,767 *Storing term substitution information in an index* Jan. 9, 2018.

Assignee: Google Inc. (Mountain View, CA),

US Patent 9,286,405 *Index-side synonym generation* Mar. 15, 2016.

Assignee: Google Inc. (Mountain View, CA),

US Patent 8,171,002 *Matching engine with signature generation* May 1, 2012.

Assignee: Trend Micro Incorporated (Tokyo, JP)

US Patent 8,117,205 *Technique for enhancing a set of website bookmarks by finding
related bookmarks based on a latent similarity metric* Feb. 14, 2012

Assignee: International Business Machines Corporation (Armonk, NY)

US Patent 7,685,112 *Method and apparatus for retrieving and indexing hidden pages*
Mar. 23, 2010

Assignee: The Regents of the University of California (Oakland, CA)

US Patents 7,146,409; *System and method for efficient control and capture of dynamic database content*, December 5, 2006. Inventors: Bushee; William J., **Tiahart; Thomas W.**, Bergman; Michael K.
 US Patent 7,249,122; *Method and system for automatic harvesting and qualification of dynamic database content*, July 24, 2007. Inventors: Bushee; William J., **Tiahart; Thomas W.**, Bergman; Michael K.
 US Patent 7,676,555; *System and method for efficient control and capture of dynamic database content*, March 9, 2010. Inventors: Bushee; William J., **Tiahart; Thomas W.**, Bergman; Michael K.
 US Patent 8,380,735; *System and method for efficient control and capture of dynamic database content*, February 19, 2013. Inventors: Bushee; William J., **Tiahart; Thomas W.**, Bergman; Michael K.

Presentations

Presenter, Annual Conference, "What Do Analytics Programs Teach?"
 INFORMS Annual Conference November 14, 2016, Nashville, Tennessee.

Working Papers

Tiahart, Thomas, Bartlomeij Hanus and Jason C. Porter. *Offering a Data-Centric Information Systems Course*
 Huckabee, Gregory, David Carr and Thomas Tiahart. *NCAA Inter-divisional Games: Are There More Injuries When David Plays Goliath?*
 Tiahart, Thomas and Daniel Chang. *What Do Analytics Programs Teach?*
 Tiahart, Thomas, Mandie Weinandt, and Jason C. Porter. *Using Statistics to Support Business Decisions: The Case of Movie Productions Inc.*
 Tiahart, Thomas, Raleigh M. Tiahart, and Michael Allgrunn. *Characteristics of Successful University Presidents*

Grants

NSF EPSCoR Student Summer Research Grant \$2,850
 Beacom School of Business Summer Research Grant \$2,000
 John W. Carlson Research Grant \$1,000

Service

New Program Development

Undergraduate
 Bachelor of Business Administration in Operational Analytics
 Graduate
 Master of Science in Business Analytics

Presentations

Presenter, Annual Conference, "Opportunities for High School Students at in Business."
 SD Department of Education Career and Technical Education Annual Conference, July 31, 2017
 Panel Chair, Annual Conference, "What Do Employers Want Analytics Graduates to Know?"
 INFORMS Annual Conference November 13, 2016, Nashville, Tennessee.
 Presenter, Annual Conference, "An Introduction to Analytics."
 SD Department of Education Career and Technical Education Annual Conference, July 31, 2016

Consulting

University Libraries – resource-usage analytics consulting
 University Information Technology Services – software and statistics consulting
 Beacom School of Business Director, Graduate Business & Executive Education Programs –
 database schema architecture
 Paulsen Ag – marketing analytics consulting

*Committees***University**

Standing

Intellectual Property Committee 2015-present
 University Libraries Committee 2015-2019

Beacom School of Business

Standing

MSBA Admissions Committee Chair
 MSBA Assessment Committee Chair
 Curriculum and Instruction Committee
 MBA Admissions Committee - Alternate 2015-2018

Ad Hoc

Director of Graduate and Executive Education Search Committee 2015
 Chair - Business Analytics Professor Search Committee 2015-2016
 Chair - Information Systems Professor Search Committee 2016-2017
 Beacom Opportunity Fund Committee 2016-present
 Faculty Excellence in Research Committee 2017-2018

New Course Development

DSCI 724 *Data Mining for Managers* –
 data mining survey including supervised and unsupervised machine learning
 DSCI 725 *Data Mining for Competitive Advantage* –
 time-series forecasting, dimension reduction, neural nets and discriminant analysis all using data mining
 DSCI 726 *Operational Analytics* –
 explores the full cycle of descriptive, predictive, and prescriptive analytics to optimize business processes
 DSCI 784 *Capstone Project* – students complete a business-community project

Teaching

BADM 720 *Quantitative Analysis* – Summer 2014, Summer 2015, Fall 2015
 DSCI 724 *Data Mining for Managers* – Fall 2014, Summer 2016, Summer 2017
 DSCI 725 *Data Mining for Competitive Advantage* – Spring 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019
 DSCI 726 *Operational Analytics* – Spring 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019
 DSCI 784 *Capstone Project* – Spring 2019
 BADM 520 *Foundations of Calculus & Statistics for Business* – Spring 2015, Spring 2016, Spring 2017,
 Spring 2018, Spring 2019
 BADM 220 *Business Statistics I* – Fall 2014, Spring 2015, Fall 2015, Fall 2017, Fall 2018
 BADM 321 *Business Statistics II* – Spring 2016, Spring 2018
 BADM 323 *Information Systems for Business Professionals* – Fall 2016, Spring 2017, Fall 2017

DSCI 429 *Predictive Business Analytics* Fall 2019

Employment

2018–present POET Professor of Business Analytics
2018–present MS in Business Analytics Program Coordinator
2016–present Operational Analytics Program Coordinator
2014–present Assistant Professor of Decision Sciences
2012–2014 Analytics Program Director, Northwestern College
2011–2014 Assistant Professor of Computer Science, Northwestern College
2010–2011 Instructor in Computer Science, Northwestern College
2008–2010 Computational Science Research Assistant, University of South Dakota
2006–2008 Chief Scientist, BrightPlanet Corporation
2003–2006 Principal Software Engineer, BrightPlanet Corporation
1996–2003 Principal Software Engineer, VisualMetrics Corporation
1995–1996 Senior Software Engineer, Gateway
1993–1995 Senior Software Engineer and Manager of Human Resources, Parallel Software, Inc.
1991–1993 Senior Design Engineer, Mycro-Tek, Inc.
1988–1991 Graduate Teaching Assistant, University of South Dakota
1986–1988 Director of Software Development, CMC Information Systems, Inc.
1984–1986 Manager of Software Development, CMC Information Systems, Inc.
1983–1986 Software Engineer, CMC Information Systems, Inc.

Memberships and Honors

POET Professor of Business Analytics
University of South Dakota John W. Carlson Research Grant
Golden Key International Honour Society
Upsilon Pi Epsilon, International Honor Society for the Computing and Information Disciplines
Omicron Delta Epsilon, the International Honor Society for Economics
The Association of Computing Machinery, ACM SIGKDD
Decision Sciences Institute
INFORMS
The Institute of Management Accountants
University of South Dakota Outstanding Computer Science Graduate Student
University of South Dakota Outstanding Computer Science Teaching Assistant
Mycro-Tek Employee of the Quarter