## Kenneth Baclawski

College of Computer and Information Science
Northeastern University
360 Huntington Avenue
Boston, MA 02115, USA
email: Ken@Baclawski.com
ken.baclawski.org

#### Education

Ph.D. 1976 Harvard University (Mathematics)

B.S. 1971 University of Wisconsin, Milwaukee (Applied Mathematics and Engineering Physics)

## Experience

- 7/2017 to present: Associate Professor Emeritus. College of Computer and Information Science, Northeastern University, Boston, MA
- 1/1983 to 6/2017: Associate Professor. College of Computer and Information Science, Northeastern University, Boston, MA
- 9/2003 to 8/2005: Visiting Professor. Harvard Medical School, Boston, MA
- 7/1998 to 12/2005: Chief Scientist. Jarg Corporation, Waltham, MA
- 7/1997 to 6/1998: Chief Technical Officer. Jarg Corporation, Waltham, MA
- 9/1982 to 12/1982: Visiting Scholar in Applied Mathematics. Massachusetts Institute of Technology, Cambridge, MA
- 7/1981 to 12/1981: Acting Chairman. Mathematics Department, Haverford College, Haverford, PA
- 1/1980 to 6/1980: Visiting Professor. University of California, San Diego
- 7/1979 to 6/1986: Consultant to the Director. Los Alamos National Laboratory, Los Alamos, NM
- 7/1978 to 12/1983: Assistant Professor. Haverford College, Haverford, PA

7/1976 to 6/1978: C.L.E.Moore Instructor. Massachusetts Institute of Technology, Cambridge, MA

7/1972 to 6/1976: Teaching Fellow. Harvard University, Cambridge, MA

5/1970 to 8/1970: Assistant Professor. Physics Department, University of Wisconsin, Milwaukee

#### Areas of Interest

Semantics of Data

Web Service Specification and Deployment

Big Data and NoSQL Systems

High-Performance Ontology-Based Computing

Knowledge Bases for Biology and Medicine

Ontologies for: Life Sciences, Situation Awareness and Financial Services

## Research Impact

| h-index                | 39   |
|------------------------|------|
| g-index                | 72   |
| number of publications | 409  |
| number of citations    | 5561 |
| as of 2020-04-22       |      |

#### Honors and Awards

"Improving Quality and Flexibility of Machine Learning Methods," Oracle. 2018-06-12 to 2019-06-11.

"Statistical Methods using Thread Intensity for Performance Monitoring," Oracle. 2017-05-01 to 2018-04-30.

Google awarded a settlement to Northeastern University to conclude a patent infringement lawsuit for US Patent No. 5,694,593 (Kenneth Baclawski, inventor). This patent was allegedly for what Google calls MapReduce. MapReduce is the main search engine used by Google. MapReduce is the basis for NoSQL search engines such as Hadoop, and is one of the fundamental tools used for Big Data systems. US Patent No. 5,694,593 was invented in 1993; the patent application was in 1994; the patent was granted in 1997; the lawsuit was settled in 2011. The terms of the settlement are confidential.

"Enhancing Organism Based Disease Knowledge Via Name Based Taxonomic Intelligence," National Library of Medicine. 2008-10-01 to 2012-09-30.

Keynote Address, 4th Semantic Interoperability for E-Government Conference, 2006.

- Special Recognition Award from the Open Group and the Federal Semantic Interoperability Community of Practice, 2006.
- Keynote Address, Workshop on Advancing Toward Credible Agreements Around Information Sharing Environments, Governance, and Data Architecture, 2005.
- Outstanding Paper Award, SDR Forum, 2005.
- "Computational Models of Health Behavior Change Dialog," National Library of Medicine. 2007-10-01 to 2009-09-30.
- "Automated Ontologically-Based Link Analysis of International Web Logs for the Timely Discovery of Relevant and Credible Information," Air Force. 2006-03-01 to 2009-02-28.
- "Semantic Information eXchange Architecture," Navy. 2006-01-19 to 2008-01-18.
- "Situational Behavior Modeling," US Air Force Office of Scientific Research. 2006-06-01 to 2007-05-30.
- "A Knowledge Development and Utilization Environment to Support Knowledge-Based Information Fusion in the Context of Asymmetric Warfare Information," Army. 2005-11-01 to 2007-10-31.
- Keynote Address, Third International Workshop on Software Methodologies, Tools and Techniques, 2004.
- "A Formal Framework for Situation Awareness," Air Force. 2003-05-01 to 2005-04-30.
- Keynote Address, Second International Workshop on Software Methodologies, Tools and Techniques, 2003.
- "Information Fusion Reference Model," Army. 2005-01-01 to 2005-06-30.
- "Achieving Interoperability of Emergency Response Teams Using Model Driven Architecture and Software Defined Radios," NSF. 2002-10-01 to 2004-09-30.
- "A Formal Framework for Situation Awareness," Air Force. 2002-05-01 to 2003-01-31.
- "UML-Based Ontology Toolset," DARPA. 2000-09-01 to 2005-08-31.
- "Architectures for ANT Based Adaptive Resource Management for Electronic Warfare," DARPA. 1999-10-01 to 2002-09-30.
- "Re-Engineering of Multi-Sensor Fusion Software Through the Use of Formal Methods," Sanders, a Lockheed Martin Company. 1999-01-01 to 1999-12-31.
- "Biomedical Science Information Retrieval and Management," NIH. 1998-10-01 to 1999-09-30.
- "Data/Knowledge Bases For Biological Papers And Techniques," NSF. 1992 to 1995.
- "Research on file access patterns," Amdahl Corporation. 1988 to 1988.
- "High-Performance Transaction Systems," NSF. 1987 to 1989.
- Keynote Address, Trends in Combinatorics, 1982.

Case Western Reserve University Centennial Medal, 1982.

"Algebra and Combinatorics," NSF. 1979 to 1983.

"Combinatorial Theory," NSF. 1977 to 1978.

"The Bracket Ring of a Combinatorial Geometry," NSF. 1976 to 1977.

"James K. Whittemore Fellow," Harvard University. 1975 to 1976.

"Graduate Fellowship," NSF. 1971 to 1975.

"Woodrow Wilson Fellow," Woodrow Wilson Foundation. 1971 to 1972.

"Undergraduate Research Grant," NSF. 1968 to 1968.

## Courses Taught

Web Service Development
Software Component Development
Introduction to Software Engineering
Transaction Processing Systems
Distributed Database Systems
Object-Oriented Design
Introduction to Database Management
Operating Systems Design
Data Modeling
Algorithms
C++ Programming
Data Structures
Assembly Language
Introduction to Computer Programming

## Service Activities

Treasurer, IEEE Conference on Cognitive and Computational Aspects of Situation Management. 2019–present.

General Chair, IEEE Conference on Cognitive and Computational Aspects of Situation Management. 2018.

Member, IEEE Systems, Man and Cybernetics Society. 2018–present.

Infrastructure Committee, International Association for Ontologies and Applications. IAOA. 2018–present.

Chair, Ontolog Board of Trustees. 2018–present.

Overall Chair, Ontology Summit. 2017–present.

Executive Committee Member and Treasurer, International Association for Ontologies and Applications. IAOA. 2016–present.

Co-Chair, Semantic Interoperability in the GeoSciences and Geographically Distributed Sensor Networks. Ontology Summit. 2016.

Member of Organizing Committee, Ontology Summit. 2016–present.

Member, Program Committee. International Workshop on Modular Ontologies. 2015.

Member of Organizing Committee, Workshop on Modular Ontologies (WoMO). 2014–2018.

Chair, Masters Committee. College of Computer and Information Science. 2014–2016.

Member, Academic Appeals Committee. Northeastern University. 2014–2015.

Co-Founder and Chair, CMIS for Document Access Management (CMIS4DAM) Technical Committee. OASIS. 2014–2016.

Co-Chair, Tackling the Variety Problem in Big Data. Ontology Summit. 2014.

Chair, Semantic Annotation of the Ontolog Community Environment. Ontology Summit. 2014.

Advisor, Hackathon. Ontology Summit. 2014.

Co-Chair, Semantic Web and Ontologies (SWAO) Special Interest Group. IAOA. 2014—present.

Member, Ontolog Board of Trustees. 2014–present.

Member of Organizing Committee, Ontology Summit. 2014.

Chair, Repositories Special Interest Group. IAOA. 2013–2014.

Member, Standards and Ontologies Special Interest Group. IAOA. 2013–2014.

Member of Organizing Committee, Ontology Summit. 2013.

Chair, Ontology Tools Survey. Ontology Summit. 2013.

Co-Chair Organizing Committee, Hackathon. Ontology Summit. 2013.

Co-Chair, OOR-Ontohub-Gatekeeper API Workshop. 2013.

Chair, Ontologies and Standards for Social Networking Workshop. 2013.

Co-Chair, Guide to Reasoning Applications Development and Cases. Ontology, Rules, and Logic Programming for Reasoning and Applications. 2013.

Co-Chair, Open Ontology Repository Development Workshop. OOR Initiative. 2013.

Co-Chair, Software Environments for Evaluating Ontologies Track. Ontology Summit. 2013.

Co-Chair, Leveraging Semantics on OntologPSMW. Ontology Summit. 2013.

Co-Chair, Ontohub-OOR-OOPS! Integration. Ontology Summit. 2013.

Co-Chair, Ontologies and Standards Mini-Series. 2012–2013.

- Secretary of Steering Committee, Workshop on Modular Ontologies (WoMO). 2013–2017.
- Member, Content Management Interoperability Services (CMIS) Technical Committee. OASIS. 2013–2017.
- Member, Masters Committee. College of Computer and Information Science. 2013.
- Chair, OASIS Integrated Collaboration Object Model for Interoperable Collaboration Services (ICOM) Technical Committee. OASIS. 2012–2016.
- Member, OASIS Open Data Protocol (OData) Technical Committee. OASIS. 2012–2016.
- Panelist, Bioengineering Sciences and Technologies: Shared Instrument Review. National Institutes of Health. 3/2012.
- Member, Program Committee. International Workshop on Modular Ontologies. 7/2012.
- Panelist, Review Panel on Collaboration with NCBCs. National Institutes of Health. 3/2011.
- Presenter, OOR-BioPortal Joint Workshop. Ontolog Forum and NCBO. 2011.
- Chair, University Standing Appeals Committee on Tenure. Northeastern University. 2011–2012.
- Co-Chair, Open Ontology Repository Architecture Workshop Series. Ontolog Forum. 2011–2012 (twelve sessions).
- Member, Organizing Committee and Program Committee. OCAS: Ontologies Come of Age in the Semantic Web at ISWC 2011. 2011.
- Member, Program Committee. ACM Workshop on Medical Multimedia Analysis and Retrieval (MMAR 2011). 2011.
- Member, University Standing Appeals Committee on Tenure. Northeastern University. 2010–2011, 2014–2015.
- Member, Marius Solomon Evaluation Committee. Northeastern University. 2010–2011.
- Member, Program Committee. IEEE Conference on Cognitive Methods in Situation Awareness and Decision Support (CogSIMA). 2010–present.
- Member, Program Committee. ESWC 2010 Workshop on Ontology Repositories and Editors for the Semantic Web. 2010.
- Member, Organizing Committee and Program Committee. ISWC 2010 Workshop on Semantic Repositories for the Web. 2010.
- Panelist, Computational Modeling and Sciences for Biomedical and Clinical Applications. National Institutes of Health. 7/2009 (twice), 11/2009, 3/2010, 6/2010, 10/2010, 2/2011, 6/2011, 10/2011, 2/2012, 10/2012.
- Panelist, Special Emphasis Panel. National Institutes of Health. 3/2009.

- Panelist, Computer Shared Instrumentation. National Institutes of Health. 7/2009.
- Member, International Association for Ontologies and Applications (IAOA). IAOA. 2009—present.
- Chair, Open Ontology Repository Gathering. International Semantic Web Conference. 2009.
- Chair, Ontology Repository Research Issues. Ontolog Forum and NCBO. 2009.
- Member, Program Committee. Collaboration and Ontology Repository Workshop (CCMaLiSK) at the International Semantic Web Conference. 2009.
- Member, Program Committee. Transforming and Weaving Ontologies and Model Driven Engineering at the MoDELS Conference. 2008, 2009, 2010.
- Co-Founder, Convener, Speaker and Session Chair, Open Ontology Repository Initiative. Ontolog Forum and NCBO. 2008–2014 (weekly virtual meetings).
- Member, Frader Evaluation Committee. Northeastern University. 2008.
- Series Chair, Emerging Ontology Content Showcase. Ontolog Forum. 2008.
- Member, Provost Grant Review Board. Northeastern University. 2007.
- Presenter, Panel on social networking. Northeastern University. 2007.
- Convener, Speaker and Session Chair, Ontology Summit. National Institute of Standards and Technology. 2007, 2008.
- Convener, Speaker and Session Chair, Ontolog Forum. NIST, IAOA and NCBO. 2007—present (weekly virtual meetings).
- Presenter, Inaugural Encyclopedia of Life Meeting. Marine Biological Laboratory. 2007.
- Panelist, Ad Hoc Study Group. National Institutes of Health. 7/2006, 9/2006, 1/2007.
- Keynote Address, Introduction to the Semantic Web. 4th Semantic Interoperability for E-Government Conference. 2/2006.
- Panelist, NIH NIDDK Review Branch. National Institutes of Health. 2/2006.
- Member, Program Committee. Semantic Modeling and Model-Driven Architecture (SMMDA). 2006.
- Chair, Scientific Advisory Board of the Virtual Plant Information Network (VPIN). National Center for Genome Resources. 2005–2007.
- Panelist, Biodata Study Group. National Institutes of Health. 7/2005, 10/2005.
- Member, Program Committee. International Symposium on Network Computing and Applications. 2005.
- Tutorial Presenter, Introduction to the Semantic Web for Bioinformatics. Computational Systems Bioinformatics Conference. 11/2005.
- Program Committee Member, Workshop on Semantic Web Enabled Software Engineering. International Semantic Web Conference. 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013.

- Session Chair, Conference. SPIE Conference on Multisensor, Multisource Information Fusion. 2005.
- Member, Advisory Board. School of Technological Entrepreneurship, Northeastern University. 2004–2011.
- Member, Program Committee. International Semantic Web Conference. 2004–2005.
- Member, Program Committee. International Symposium on Network Computing and Applications. 2004–2005.
- Session Chair, Symposium. International Symposium on Network Computing and Applications. 2004–2005.
- Member, Search Committee for the Dean of the School of Technological Entrepreneurship. Northeastern University. 2004–2005.
- Chair, Evaluation Committee for the Dean of the College of Engineering. Northeastern University. 2004.
- Member, Program Committee. International Workshop on Software Methodologies, Tools and Techniques. 2003, 2004, 2005, 2006, 2007.
- Member, Ontology Working Group. Object Management Group. 2002–2004.
- Senator, Faculty Senate. Northeastern University. 2001–2003.
- Member, UML2.0 Standardization Committee. Object Management Group. 2001–2003.
- Member, Responsibility-Centered Management Committee. Northeastern University. 2001–2002.
- Member, Financial Affairs Committee. Northeastern University. 2001–2002.
- Member, School of Entrepreneurship Committee. Northeastern University. 2000–2001.
- Co-Author, Web Ontology Language. World Wide Web Consortium. 2000–2001.
- Co-Chair, Workshop on Behavioral Semantics. Object-Oriented Programming Languages, Systems and Architectures. 1999–2002.
- Secretary, Evaluation Committee for the Dean of the School of Engineering Technology. Northeastern University. 1993–1994.
- Secretary, Long-Range Planning Committee. Northeastern University. 1991–1992.
- Member, Undergraduate Committee. College of Computer and Information Science. 1988–2013.
- Member, Computing Resources Committee. College of Computer and Information Science. 1988–1989.
- Advisor, Programmers Guild. College of Computer and Information Science. 1988–1989.
- Advisor, Association for Computing Machinery Student Chapter. College of Computer and Information Science. 1988–1991.

- Member, Committee on the Use of Computers in Advising. Northeastern University. 1989–1991.
- Chair, Program Review Committee for Mechanical Engineering. Northeastern University. 1987–1988.
- Chair, Program Review Committee of the Graduate Council. Northeastern University. 1984–1986.
- Member, Graduate Council Executive Committee. Northeastern University. 1984–1986.
- Member, Graduate Council. Northeastern University. 1984–1986.
- Co-Chair, Joint Committee on Business-Computer Science Cooperation. College of Computer and Information Science. 1988–1993.
- Member, Computer Resource Advisory Committee. College of Computer and Information Science. 1988–1990.
- Chair, Hiring Committee. College of Computer and Information Science. 1988–1991.
- Chair, Colloquium Committee. College of Computer and Information Science. 1985–1990.
- Secretary, Tenure Committee. College of Computer and Information Science. 1988–1994, 2002–2003.
- Member, Tenure Committee. College of Computer and Information Science. 1985–2017.
- Chair, Merit Review Committee. College of Computer and Information Science. 1987–1988, 2013–2015.
- Member, Merit Review Committee. College of Computer and Information Science. 1985–1988, 1992–1993.
- Member, Hiring Committee. College of Computer and Information Science. 1983–1991.
- Chair, Sabbatical Leave Committee. College of Computer and Information Science. 1983–1989, 1991–1995, 1996–1997, 2004–2010.
- Member, Graduate Committee. College of Computer and Information Science. 1983–1986.
- President, GBSIGMOD. Association for Computing Machinery. 1986–1990, 1991–1993.
- President, Greater Boston Chapter. Association for Computing Machinery. 1990–1992.
- Vice-President, Greater Boston Chapter. Association for Computing Machinery. 1986–1988.
- Member, Greater Boston Chapter Executive Board. Association for Computing Machinery. 1984–1999.

Treasurer, GBSIGMOD. Association for Computing Machinery. 1990–1991.

Chair, Greater Boston Chapter Volunteers Committee. Association for Computing Machinery. 1992–1993.

Chair, Greater Boston Chapter Strategic Planning Committee. Association for Computing Machinery. 1992–1993.

Member, SIGMOD. Association for Computing Machinery. 1984–2000.

Member, Greater Boston Chapter. Association for Computing Machinery. 1984–2008.

Member, Computer Society. IEEE. 1984-present.

Member, Technical Committee on Data Engineering. IEEE. 1984–2000.

Member, Program Committee. IEEE-Boston. 1990–1994.

Chair, Greater Boston Chapter Program Committee. Association for Computing Machinery. 1984–1993.

#### Websites and Software

Knowledge Intensive Data System Ontology

Kenneth Baclawski. Provides: software. Purpose: research.

ken.baclawski.org/kids.owl

2016.

The SoapRest Web Services Package

Kenneth Baclawski. Provides: software. Purpose: research.

ken.baclawski.org/soaprest

2014.

Java EAPG - An Extended ABNF Parser Generator

Kenneth Baclawski. Provides: software. Purpose: research.

ken.baclawski.org/eapg.jar

2014.

Open Ontology Repository API

Kenneth Baclawski. Provides: software. Purpose: research.

ken.baclawski.org/oor

2014.

Northeastern University Pseudo Cone Facility (NUPCF)

Kenneth Baclawski.

Provides: software, website.

Purpose: research.

ken.baclawski.org/nupcf

2011.

Purple Semantic Media Wiki

Kenneth Baclawski, Peter Yim, Tejas Parikh, Sumit Purohit.

Provides: software, website. Purpose: research, service.

2011-2014.

Use Case Description Ontology

Kenneth Baclawski. Provides: ontology.

Purpose: research, service.

ken.baclawski.org/ontologies/ucdo.owl

2010.

KEEPER Project

Kenneth Baclawski, Maximo Gurmendez.

Provides: software, website.

Purpose: research.

2010-2014.

Open Ontology Repository Use Case Descriptions

 ${\it Kenneth\ Baclawski,\ Maximo\ Gurmendez}.$ 

Provides: software, website, ontology.

Purpose: research.

ken.baclawski.org/ontologies/oor-usecase.xml

2010.

Introduction to Probability with R

Kenneth Baclawski.

Provides: software, website, textbook.

Purpose: teaching.

stochas.baclawski.org

#### 2008-present.

Purple Media Wiki Extension

Kenneth Baclawski, Peter Yim, Tejas Parikh, Viral Gupta, Sumit Purohit.

Provides: software, website. Purpose: research, service.

2008-2014.

Open Ontology Repository

Kenneth Baclawski (PI), Peter Yim, Todd Schneider, Michael Gruninger, National Center for Biomedical Ontologies, Open Ontology Repository Initiative.

Provides: software, website.

Purpose: research.

 ${\tt oor.net} \ 2008-2014.$ 

Ontologies for Bioinformatics Website

Kenneth Baclawski, Tianhua Niu.

Provides: website.

Purpose: teaching, textbook. ontobio.baclawski.org

2005.

Eleventh OOPSLA Workshop on Behavior Semantics

Kenneth Baclawski, Haim Kilov.

Provides: website. Purpose: service.

ken.baclawski.org/oopsla2002

2002.

Tenth OOPSLA Workshop on Behavior Semantics

Kenneth Baclawski, Haim Kilov, Angelo Thalassinidis, Kevin Tyson.

Provides: website. Purpose: service.

ken.baclawski.org/oopsla2001

2001.

Ninth OOPSLA Workshop on Behavior Semantics

Kenneth Baclawski, Haim Kilov, Angelo Thalassinidis, Kevin Tyson.

Provides: website. Purpose: service.

ken.baclawski.org/oopsla2000

2000.

 ${\it Java~RMI~and~Synchronization~Tutorials}$ 

Kenneth Baclawski.

Provides: software, website.

Purpose: teaching.

ken.baclawski.org/tutorial

1998-2013.

# Partial List of Students

| Student              | Title or Topic Area            | Year |
|----------------------|--------------------------------|------|
| Kamran Rastegar      | Database Systems               | 1983 |
| Yazun Al Eifan       | Knowledge Representation       | 1985 |
| Elliott Smith        | Knowledge Representations      | 1985 |
| Thomas Fleming       | Distributed Databases          | 1986 |
| Richard Weeks        | Natural Language Front Ends to |      |
|                      | Databases                      | 1986 |
| David Laplante       | Capturing More Meaning in      |      |
|                      | Databases                      | 1986 |
| Lee Mandell          | Capturing More Meaning in      |      |
|                      | Databases                      | 1986 |
| Whit Stockwell       | Capturing More Meaning in      |      |
|                      | Databases                      | 1986 |
| George Jreige        | Enhancing Knowledge            |      |
|                      | Representations                | 1986 |
| Vivian Carpenter     | Using the Decision-Tree Model  |      |
|                      | in Database Design             | 1986 |
| Ying Ng              | Using the Decision-Tree Model  |      |
|                      | in Database Design             | 1986 |
| Manus Fealy          | Integrating User Views in      |      |
|                      | Database Design                | 1986 |
| Chetan Mepani        | Integrating User Views in      |      |
|                      | Database Design                | 1986 |
| Barry Sullivan       | Logic Programming              | 1986 |
| Tin-yan Sun          | Comparison of Pascal and Ada   | 1986 |
| Michael Llewellyn Jr | Rule-based Systems             | 1986 |
| Nicolas Lossky       | Rule-based Systems             | 1986 |
| John Buczkowski      | Object-Based Computing and the |      |
|                      | Ada Language                   | 1986 |

| Student                | Title or Topic Area             | Year |
|------------------------|---------------------------------|------|
| Susanne Chan           | Object-Based Computing and the  |      |
|                        | Ada Language                    | 1986 |
| Jeffrey Bloomberg      | Animating Programs Using        |      |
|                        | Smalltalk                       | 1986 |
| Tom Friends            | A Taxonomy of Current Issues in |      |
|                        | Requirements Engineering        | 1986 |
| Ashvin Patel           | Structured Analysis Concepts    | 1986 |
| Richard Fucarile       | Data Flow Design                | 1986 |
| Scott Ribiero          | Functional Decomposition        | 1986 |
| Ian Campbell           | Data Structure Design           | 1986 |
| Frederick Dacey III    | Learning from AI: New Trends in |      |
|                        | Database Technology             | 1986 |
| Jeff Mattson           | AI Techniques for Database      |      |
|                        | Management                      | 1986 |
| Frederick Boudreau III | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Scott Bradley          | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Johathan Fava          | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Martin Fitzgerald      | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Edward Francoeur       | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Heather Hall           | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Richard Larowe Jr      | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Brendan McBreen        | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| David Painter          | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Nidal Rajeh            | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Philip Roux            | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |
| Douglas Silver         | Graphic User Interfaces for     |      |
|                        | Software Engineering            | 1987 |

| Student            | Title or Topic Area            | Year |
|--------------------|--------------------------------|------|
| Mary Ann Werbinski | Graphic User Interfaces for    |      |
|                    | Software Engineering           | 1987 |
| Anthony Zeoli Jr   | Graphic User Interfaces for    |      |
|                    | Software Engineering           | 1987 |
| Joseph Zinkann     | Graphic User Interfaces for    |      |
|                    | Software Engineering           | 1987 |
| Eric Aftandilian   | Transaction Processing Systems | 1987 |
| George Azzi        | Transaction Processing Systems | 1987 |
| Charles Connors    | Transaction Processing Systems | 1987 |
| Anna Dimascio      | Transaction Processing Systems | 1987 |
| Mark Geschelin     | Transaction Processing Systems | 1987 |
| Ban Fan Hazineh    | Transaction Processing Systems | 1987 |
| Lucy Karis         | Transaction Processing Systems | 1987 |
| William Kilduff    | Transaction Processing Systems | 1987 |
| Margaret Mekosky   | Transaction Processing Systems | 1987 |
| Khaled Mohieddin   | Transaction Processing Systems | 1987 |
| Azita Refah        | Transaction Processing Systems | 1987 |
| Gregory Smith      | Transaction Processing Systems | 1987 |
| Raymond Suarez     | Transaction Processing Systems | 1987 |
| Christine Sullivan | Transaction Processing Systems | 1987 |
| Lori Lashway       | Transaction Processing Systems | 1987 |
| Fariba Aliloo      | Transaction Processing Systems | 1987 |
| Samuel Bechar      | Transaction Processing Systems | 1987 |
| Samir Bhatia       | Transaction Processing Systems | 1987 |
| Avonelle Christian | Transaction Processing Systems | 1987 |
| Lawrence Fowler    | Transaction Processing Systems | 1987 |
| Dek Lee            | Transaction Processing Systems | 1987 |
| Stephen Muli       | Transaction Processing Systems | 1987 |
| Neal Rudnick       | Transaction Processing Systems | 1987 |
| Ronald Sandstrom   | Transaction Processing Systems | 1987 |
| Jerry Thomas       | Transaction Processing Systems | 1987 |
| Patricia Castillo  | Software Engineering           | 1987 |
| Roy Rubinstein     | Software Engineering           | 1987 |
| Jun Chen           | High-Performance Transaction   |      |
|                    | Processing Systems             | 1988 |
| Jyh-Hwa Chen       | High-Performance Transaction   |      |
|                    | Processing Systems             | 1988 |
| Siu Pong Choa      | High-Performance Transaction   |      |
|                    | Processing Systems             | 1988 |

| Hsing-Tao Chou   | Student             | Title or Topic Area             | Year |
|--|---------------------|---------------------------------|------|
| Jean Collins  High-Performance Transaction Processing Systems  Sunil Contractor  High-Performance Transaction Processing Systems  Yiannis Doganis  High-Performance Transaction Processing Systems  High-Performance Transaction Processing Systems  High-Performance Transaction Processing Systems  Christine Hammond  High-Performance Transaction Processing Systems  High-Performance Transaction Processing Systems  Henry Rausen  High-Performance Transaction Processing Systems  High-Performance Transaction Processing Systems  High-Performance Transaction Processing Systems  Jackson Wynn  High-Performance Transaction Processing Systems  Fan Holland  Hype: A Mini-Hypertext System  Hype: A Mini-Hypertext System  Hype: A Mini-Hypertext System  Hype: A Mini-Hypertext System  Semantic Data Modeling  Hype: A Modeling  Hy | Hsing-Tao Chou      | High-Performance Transaction    |      |
| Sunil Contractor High-Performance Transaction Processing Systems Processing Systems Processing Systems High-Performance Transaction Processing Systems Processing Systems Processing Systems Whaceb Ghafoor High-Performance Transaction Processing Systems High-Performance Transaction Processing Systems Processing Systems High-Performance Transaction High-Performance Transaction Processing Systems High-Performance Transaction High-Performance Transaction High-Performance Transaction Processing Systems High-Performance Transaction High-Performance Transaction High-Performance Transaction High-Performance Transaction High-Performance Transaction High-Performance Transaction High-Performance Transacti |                     | Processing Systems              | 1988 |
| Sunil Contractor Processing Systems Processing Processing Processing Processing Processing Proceson Processing Processing Proce | Jean Collins        | High-Performance Transaction    |      |
| Sunil Contractor Processing Systems Processing Processing Processing Processing Processing Proceson Processing Processing Proce |                     | Processing Systems              | 1988 |
| Yiannis DoganisHigh-Performance Transaction<br>Processing Systems1988Whaeeb GhafoorHigh-Performance Transaction<br>Processing Systems1988Christine HammondHigh-Performance Transaction<br>Processing Systems1988Wing LamHigh-Performance Transaction<br>Processing Systems1988Henry RausenHigh-Performance Transaction<br>Processing Systems1988Tze-Ming TsangHigh-Performance Transaction<br>Processing Systems1988Jackson WynnHigh-Performance Transaction<br>Processing Systems1988Er Hong YeHigh-Performance Transaction<br>Processing Systems1988You Yi ZhangHigh-Performance Transaction<br>Processing Systems1988Ian HollandHype: A Mini-Hypertext System1988Timothy MarkSemantic Data Modeling1988Ramesh RamachandranSemantic Data Modeling1988Ignacio Silva-LepeConsistency Checking of<br>Semantic Data Models1990Christine StamelosName Service for Semantic Data<br>Models1990Jacek KruszelnickiGraphic views for alpha model1990Jing WangView mechanisms for alpha model1990Viaoji CaiObject-oriented data models1990Olaf KrugerKnowledge and Logic Databases1990Tong LiuGraphic annotation and display1990Raj BaberwalGraphic display for the alpha  | Sunil Contractor    |                                 |      |
| Whaeeb Ghafoor High-Performance Transaction Processing Systems 1988  Christine Hammond High-Performance Transaction Processing Systems 1988  Wing Lam High-Performance Transaction Processing Systems 1988  Henry Rausen High-Performance Transaction Processing Systems 1988  Tze-Ming Tsang High-Performance Transaction Processing Systems 1988  Jackson Wynn High-Performance Transaction Processing Systems 1988  Er Hong Ye High-Performance Transaction Processing Systems 1988  Er Hong Ye High-Performance Transaction Processing Systems 1988  You Yi Zhang High-Performance Transaction Processing Systems 1988  Ian Holland Hype: A Mini-Hypertext System 1988  Timothy Mark Semantic Data Modeling 1988  Ramesh Ramachandran Semantic Data Modeling 1988  Robert Newby Semantic Data Modeling 1988  Ignacio Silva-Lepe Consistency Checking of Semantic Data Models 1990  Christine Stamelos Name Service for Semantic Data Models 1990  Jacek Kruszelnicki Graphic views for alpha model 1990  Jing Wang View mechanisms for alpha model 1990  Jing Wang View mechanisms for alpha model 1990  Olaf Kruger Knowledge and Logic Databases 1990  Raj Baberwal Graphic display for the alpha  |                     | Processing Systems              | 1988 |
| Whaeeb Ghafoor Processing Systems Processing Processing Processing Processing Processing Processing Processi | Yiannis Doganis     | High-Performance Transaction    |      |
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| Tong Liu Graphic annotation and display 1990 Raj Baberwal Graphic display for the alpha  | Olaf Kruger         | Knowledge and Logic Databases   | 1990 |
| Raj Baberwal Graphic display for the alpha   |                     |                                 | 1990 |
|  | Raj Baberwal        |                                 |      |
|  |                     |                                 | 1990 |

| Student                 | Title or Topic Area             | Year |
|-------------------------|---------------------------------|------|
| Christopher Cheng       | Graphic menu interface for      |      |
|                         | alpha model                     | 1990 |
| Leonidas Deligiannidis  | Embedded Rdb/VMS SQL            |      |
|                         | Programming Using Fortran as    |      |
|                         | the Host Language for a Travel  |      |
|                         | Agent Project                   | 1991 |
| Yalan Ji                | Schema Translation              | 1992 |
| Gang Yan                | Network Emulation               | 1992 |
| Sreenivasulu Guduguntla | Graphic User Interface for      |      |
|                         | Network Emulation               | 1992 |
| Brinda K Keralavarma    | Graphic User Interface for Data |      |
|                         | Modeling                        | 1992 |
| Hong Shao               | Lock Manager for the            |      |
|                         | Transaction Processing          |      |
|                         | Emulation Tool                  | 1993 |
| Krishna Boppana         | Automated Student Advising      | 1993 |
| Jagadeesh Venugopal     | Client-Server Architecture      | 1994 |
| Kiran Kasibhatla        | Client-Server Architecture      | 1994 |
| Atchiraju Jaldu         | Client-Server Architecture      | 1994 |
| Wayne Vetrone           | Transaction Processing Systems  | 1994 |
| Shobana Sampath         | Information Retrieval for       |      |
|                         | Student Advising                | 1994 |
| Xiang Li                | Graphic User Interface for      |      |
|                         | Student Advising                | 1994 |
| Prasad Ayyalasomayajula | Graphic User Interface          | 1995 |
| Mahendra Velchuru       | Simulated ATM                   | 1995 |
| Doug Waters             | Transaction Processing          |      |
|                         | Simulation                      | 1996 |
| Yelena Prusakov         | Airport Management System       | 1999 |
| Manoj Thadani           | Distributed File System         | 1999 |
| Katarzyna Leskow        | Apache Web Server               | 1999 |
| Todd Fernandez          | Apache Web Server               | 1999 |
| Massimo Loi             | Apache Web Server               | 1999 |
| Amy Miles               | Apache Web Server               | 1999 |
| Yu Hua Zheng            | Apache Web Server               | 1999 |
| Yu Liu                  | Apache Web Server               | 1999 |
| Yahya Abd Rahman        | Intelligent Agent System        | 1999 |
| John Bardash            | Intelligent Agent System        | 1999 |

| Student              | Title or Topic Area          | Year |
|----------------------|------------------------------|------|
| Steves Stuart        | Intelligent Agent System     | 1999 |
| Jun Tian             | Multimedia Intelligent Agent |      |
|                      | System                       | 1999 |
| Joseph Cigna         | Multimedia Intelligent Agent |      |
|                      | System                       | 1999 |
| Kelvin Li            | Multimedia Intelligent Agent |      |
|                      | System                       | 1999 |
| Filipp Rakevich      | Distributed Objects          | 1999 |
| Presha Nair          | Distributed Objects          | 1999 |
| Yuhong Yin           | Knowledge Extraction and     |      |
|                      | Optimization                 | 1999 |
| Yuchun Guo           | Knowledge Extraction and     |      |
|                      | Optimization                 | 1999 |
| Arvind Meda          | Information and Content      |      |
|                      | Exchange (ICE) Protocol      | 1999 |
| Artan Simeqi         | Information and Content      |      |
|                      | Exchange (ICE) Protocol      | 1999 |
| Chi Zhang            | Information and Content      |      |
|                      | Exchange (ICE) Protocol      | 1999 |
| Furong Yang          | Information and Content      |      |
|                      | Exchange (ICE) Protocol      | 1999 |
| Rama Devulapalli     | Information and Content      |      |
|                      | Exchange (ICE) Protocol      | 2000 |
| Tao Yu               | Knowledge Extraction and     |      |
|                      | Optimization                 | 2000 |
| Jaimin Patel         | WebAdvisor                   | 2000 |
| Jarrod Whelan        | WebAdvisor                   | 2000 |
| Ricky Girglani       | WebAdvisor                   | 2000 |
| Ping Wang            | WebAdvisor                   | 2000 |
| Lyuba Yelovich       | WebAdvisor                   | 2000 |
| Fang Lan             | WebAdvisor                   | 2000 |
| Lyubov Yelovich      | Multi-Agent Systems          | 2000 |
| Nilesh Nagraj Rathod | Distance Learning Software   | 2001 |
| Jinying Zhong        | Component-Based Distributed  |      |
|                      | Systems                      | 2002 |
| Nilgun Unver         | Component-Based Distributed  |      |
|                      | Systems                      | 2002 |
| Weizhen Ji           | Component-Based Distributed  |      |
|                      | Systems                      | 2002 |

| Xi Xian Component-Based Distributed Systems 200  Zhaoming Lu Component-Based Distributed Systems 200  Shyama Gavrulla Linux Device Drivers 200  Lakshman Easwaran Benchmarks for Major Database Systems 200 | $\frac{2}{2}$ |
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| Systems 200 Shyama Gavrulla Linux Device Drivers 200 Lakshman Easwaran Benchmarks for Major Database  | 2             |
| Lakshman Easwaran Benchmarks for Major Database   | 2             |
|   |               |
|   |               |
| Systems 200   | 2             |
| Kevin Amorin Beowulf Cluster 200  | 3             |
| Prashanth Ram Parallel Processing 200   | 3             |
| Subir Kumar Distributed Processing 200  | 3             |
| Vishesh Duggar Integration of Decision  |               |
| Analysis 200  | 7             |
| David Ortiz Powerline Network Communication   |               |
| System 200  | 7             |
| Viral Gupta Fine-Grained Addressability to  |               |
| Support Large-Scale   |               |
| Collaborative Document  |               |
| Development 200   | 8             |
| Tejas Parikh Fine-Grained Addressability of   |               |
| MediaWiki Websites 200  | 9             |
| Nirmal Shah Collaborative Work Environments 200   | 9             |
| Dawei Dai The Tiki Collaborative Work   |               |
| Environment 200   | 9             |
| Munmun Mahapatra   Transclusion for Fine-Grained  |               |
| Collaboratively Developed   |               |
| Artifacts 200   | 9             |
| Sumit Purohit Purple MediaWiki 200  | 9             |
| Shruti Dabhade Object-Oriented and Classical  |               |
| Software Engineering Methods 200  | 9             |
| Sapna Gathani Active Wiki Tagging 201   | 0             |
| Srividya Mandaleeka   Semantic Search for Disease   |               |
| Reports 201   | 0             |
| Laila Nurani Metadata Registry ISO/IEC 11179  |               |
| Registration System using ORM 201   | 0             |
| Bipinkumar Shetty Administration of ISO/IEC 11179   |               |
| Metadata registries (MDR) 201   | 0             |
| Hyuk Park Query Interface for MIMIC-II 201  | 1             |
| John O'Connor Python based ORM (Object RDF  |               |
| Mapper) 201   | 1             |

| Student                    | Title or Topic Area            | Year |
|----------------------------|--------------------------------|------|
| Gaurav Durgule             | Computer Aided Standards       |      |
|                            | Development (CASD) Semantic    |      |
|                            | consistency among standards    | 2014 |
| Sankalpa Kulkarni          | Computer Aided Standards       |      |
|                            | Development Process            | 2014 |
| Srinivas Varadharajan      | A Software Tool to Automate    |      |
|                            | Standards Development Process  | 2014 |
| Vivek Singh Chouhan        | Computer Aided Standard Design | 2014 |
| Akshay Tekkatte Raghavend  | Computer Aided Standards       |      |
| Hathwar                    | Development (CASD)             | 2014 |
| Vishakha Motwani           | CASD Tool Interface for        |      |
|                            | Document Generation            | 2014 |
| Ankit S. Agrawal           | Decision Making Process for    |      |
|                            | Financial Services             | 2015 |
| Shruthi Keerthi Balki      | Student Information Management | 2015 |
| Ranjita Bhattacharyya      | Decision Making Process for    |      |
|                            | Cloud Service                  | 2015 |
| Prasanna D. Deolankar      | Decision Making Process for    |      |
|                            | Financial Services             | 2015 |
| Swapnil Sharadkumar Gupta  | Student Information Management | 2015 |
| Pramod R. Khare            | Student Information Management | 2015 |
| Saurabh Kumar Kulkarni     | Decision Making Process for    |      |
|                            | Customer Service               | 2015 |
| Sahil Mehta                | Decision Making Process for    |      |
|                            | Financial Services             | 2015 |
| Sumit Suresh Nair          | Decision Making Process for    |      |
|                            | Customer Service               | 2015 |
| Mamata D. Prabhu           | Decision Making Process for    |      |
|                            | Financial Services             | 2015 |
| Sahil Chhabra              | Decision Making Process for    |      |
|                            | Cloud Services                 | 2015 |
| Amanda Priscilla Araujo da | Decision Making Process for    |      |
| Silva                      | Financial Services             | 2015 |
| Xing Zhang                 | Decision Making Process for    |      |
|                            | Customer Service               | 2015 |
| Dipanjan Haldar            | Thread Intensity Analytics     | 2017 |
| Sanhita Bangalore          | Effects of Stress and          |      |
| SreenivasaMurthy           | Distraction on Operator        |      |
|                            | Performance                    | 2017 |