

CURRICULUM VITAE
INNA V. PIVKINA

Department of Computer Science	Phone: 575-646-6237
New Mexico State University	FAX: 575-646-1002
PO Box 30001, MSC CS	E-Mail: ipivkina@cs.nmsu.edu
Las Cruces, NM 88003	URL: http://www.cs.nmsu.edu/~ipivkina

RESEARCH INTERESTS

Computer science education, natural language processing, knowledge representation and reasoning, revision programming, data mining applications.

EDUCATION

August 2001 Ph.D. in Computer Science, University of Kentucky.
Advisors: Dr. Victor W. Marek and Dr. Mirosław Truszczyński.
PhD Dissertation: “Revision Programming: a Knowledge Representation Formalism.”

June 1990 Diploma with honors in Mathematics, Novosibirsk State University, Russia.
Concentration: Mathematical Logic. Thesis: “Basic level of Σ -programming”.

EMPLOYMENT HISTORY

Aug 2008 - Present *Associate Professor*, Department of Computer Science, New Mexico State University (NMSU).

Aug 2002 - Aug 2008 *Assistant Professor*, Department of Computer Science, NMSU.

Aug 2001 - May 2002 *Instructor*, Department of Computer Science, University of Kentucky.

Aug 1995 - Aug 2001 *Research / Teaching Assistant*, University of Kentucky.

July 1990 - Aug 1995 *Junior Researcher / Trainee*, Sobolev Institute of Mathematics, Novosibirsk, Russia.

Sep 1994 - May 1995 *Instructor* (part-time), Novosibirsk State University, Novosibirsk, Russia.

AWARDS

Certificate in Effective College Instruction, 2022, The Association of College and University Educators and the American Council on Education.

Distinguished Member of the Teaching Academy, New Mexico State University, 2022, 2021, 2009-2010, 2008-2009, 2007-2008, 2006-2007, 2005-2006, 2004-2005, 2003-2004.

Member of the Teaching Academy, New Mexico State University, 2012-2013, 2014-2015, 2018-2019, 2020-2021.

Most Distinguished Member of the Teaching Academy, New Mexico State University, 2003-2004.

Dissertation Year Fellowship, University of Kentucky, 1999-2000.

Member of UPE National Honor Society for Computing Sciences, Gamma Chapter of Kentucky.

Diploma in Mathematics with honors, Novosibirsk State University, 1990.

GRANTS

Funded Proposals

NMSU Writing-to-Learn mini-grant, 6/2016-5/2019, \$3000.

NMSU College of Arts & Sciences minigrant May 2017, "Predicting Hospital Readmissions", \$985.

Co-PI (PI: E. Pontelli; Other co-PI: K. Villaverde) "BPC-DP: Linked Communities and Computing in Context: Empowering Southern New Mexico Women in Computing", National Science Foundation (NSF), \$404,384, 8/2008–8/2010.

Co-PI (PI: J. Lodder; Other co-PIs: D. Pengelley, G. Bezhanishvili, H. Leung, J.H. Barnett) "Collaborative Research: Learning Discrete Mathematics and Computer Science via Primary Historical Sources", National Science Foundation (NSF) DUE CCLI Phase 2, \$475,000, 1/2008–12/2011.

Co-organizer "Logic and Constraint Programming Summer School", Computing Research Association (CRA-W) / Coalition to Diversify Computing (CDC), \$28,000, 2008.

NMSU ADVANCE Minigrant, 9/2008, "Participation in the Grace Hopper Conference on October 1-4, 2008, in Keystone Resort, CO", \$500.

Co-PI (PI: E. Pontelli; Other co-PIs: J. He, D. Ranjan and S. Tran) "Enhancing Participation of High-School Women to Computer Science through Bioinformatics Training and Research", Supplement to MI-I Grant CNS-0220590, NSF, 2006-2007.

Co-PI (PI: J. Lodder; Other co-PIs: D. Pengelley, G. Bezhanishvili, H. Leung, D. Ranjan) NMSU

RC: ISSS mini-grant (SFG) “Learning Discrete Mathematics via Historical Sources”, 2006, \$8,000.

Co-PI (PI: J. Cook; Other co-PIs: M. Ballyk, M. Mitchell) NMSU Research Cluster Minigrant, 9/2005-8/2006, “Performance Prediction of Large Scientific Applications to Aid Decision-Making in Computer System Utilization and System Acquisition”, \$24,970.

NMSU ADVANCE IT Award, 1/1/2005–12/31/2005, “Revision Programming with Cardinality Atoms”, \$12,504.

NMSU A&S Research Center Minigrant, 11/01/2005–5/31/2005, “Investigating Updates of Knowledge Bases”, \$634.

NMSU “Presidential allocation” grant to travel to the International Conference on Logic Programming, ICLP 2006, \$1000.

NMSU ADVANCE Faculty Development Minigrant, 11/2005, “Participation in the NSF Workshop on Nov 4, 2005, in Albuquerque, NM”, \$500.

NMSU ADVANCE Faculty Development Minigrant, 5/2005, “Participation in ‘The Covey 7 Habits of Highly Effective People’ Training”, \$250.

PUBLICATIONS

Refereed Papers

N. Alsharman, I.V. Pivkina, R.M.T Masadeh, O. Almomani, and N. Bani-Hani. “High-Performance Computing of Building The Dependency Trees and Calculating Tree Edit Distances For Text Similarity”, in *International Journal of Advances in Soft Computing and its Application*, 15, 1(2023), pp. 177-186. DOI: 10.15849/IJASCA.230320.12.

N. M. Alsharman, I. V. Pivkina. “Generating Summaries through Unigram and Bigram: Text Summarization”, in *International Journal of Information Technology and Web Engineering (IJITWE)*, vol. 15.1, pp. 64-74, 2020.

I. Pivkina, V. Kreinovich. “Finding Least Expensive Tolerance Solutions and Least Expensive Tolerance Revisions: Algorithms and Computational Complexity”, in *International Journal of Intelligent Technologies & Applied Statistics*, volume 12, issue 2, pp.151-168, 2019.

N. Al-sharman, I. V. Pivkina. “Generating Summaries through Selective Part of Speech Tagging”, in *Proceedings of the Fourth International Conference on Engineering & MIS 2018 (ICEMIS’18)*, 2018 ACM, Istanbul, Turkey. DOI:10.1145/3234698.3234712. (Acceptance Rate: 73 of 200 submissions, 37%)

K. Alshammari, I. V. Pivkina. "Relationship between Time Management in Courses with On-line Interactive Textbooks and Students' Performance", in *Proceedings of Frontiers in Education Conference (FIE)*, 2017 IEEE, Indianapolis, IN, USA, 2017, DOI:10.1109/FIE.2017.8190620.

I. Pivkina. "Peer learning assistants in undergraduate computer science courses", in *Proceedings of Frontiers in Education Conference (FIE)*, 2016 IEEE, DOI:10.1109/FIE.2016.7757658.

J. Obert, I. Pivkina, H. Huang, H. Cao. "Proactively Applied Encryption in Multipath networks", in *Computers & Security*, volume 58, pp. 106-124, 2016.

I. Pivkina. "Striving for Efficiency in Algorithms: Sorting", in *Loci: Convergence*, MAA, July 2015.

I. Pivkina. "Discovery of Huffman Codes", in *Loci: Convergence*, MAA, July 2015.

J. Obert, I. Pivkina, H. Huang, H. Cao. "Dynamically Differentiated Multipath Security in Fixed Bandwidth Networks", in *Proceedings of the Military Communications Conference (MILCOM)*, 2014, IEEE, pp. 88-93.

J. Barnett, G. Bezhanishvili, H. Leung, G. Lodder, D.J. Pengelley, I.V. Pivkina, D. Ranjan, M. Zack. "Primary historical sources in the classroom: Discrete mathematics and computer science", in *Loci: Convergence*, MAA, 4 (July 2013), DOI:10.4169/loci003984.

I. Pivkina. "Adoption of a Three-part Approach in a Discrete Mathematics Course", in *The Journal of Computing Sciences in Colleges*, volume 28, no. 4, pp. 132-138 (April 2013). (Acceptance rate 53%, 15 submitted, 8 accepted)

I. Pivkina. "Original Historical Sources in Data Structures and Algorithms Courses", in *The Journal of Computing Sciences in Colleges*, volume 26, no. 4, pp. 204-210 (April 2011). (Acceptance rate 52%, 25 submitted, 13 accepted)

J. Barnett, J. Lodder, D. Pengelley, I. Pivkina, D. Ranjan. "Designing student projects for teaching and learning discrete mathematics and computer science via primary historical sources", in *Recent Developments in Introducing a Historical Dimension in Mathematics Education* (refereed, eds. V. Katz and C. Tzanakis), Mathematical Association of America, Washington, D.C, 2011, pp.189-201.

V.Ya. Pivkin, I.V. Pivkina. "Processing of experimental data using discretization of their domains", in *Optoelectronics, Instrumentation and Data Processing*, volume 46, no. 5, pp. 507-509 (December 2010).

V.Ya. Pivkin, I.V. Pivkina. “Processing of experimental data by means of discretization of ranges” (in Russian), in *Avtometriya*, volume 46, no. 5, pp. 132-135, 2010.

I. Pivkina, E. Pontelli, R. Jensen, J. Haebe. “Young Women in Computing: Lessons Learned from an Educational & Outreach Program”, in *Proceedings of the 40th ACM Technical Symposium on Computer Science Education, SIGCSE*, Chattanooga, TN, March 2009, pages 509–513. (Acceptance rate 33%, 302 submitted, 100 accepted)

I. Pivkina, D. Ranjan, J. Lodder. “Special Session: Historical sources as a teaching tool”, in *Proceedings of the 40th ACM Technical Symposium on Computer Science Education, SIGCSE*, Chattanooga, TN, March 2009, pages 401-402. (Acceptance rate 52%, 25 submitted, 13 accepted)

K. Villaverde, C. Jeffery, I. Pivkina. “Cheshire: Towards an Alice Based Game Development Tool”, in *Proceedings of the International Conference on Computer Games, Multimedia & Allied Technology*, pages 321-328, 2009.

D. Pengelley, I. Pivkina, D. Ranjan, and K. Villaverde. “A Project in Algorithms based on a Primary Historical Source about Catalan Numbers”, in *Proceedings of the Thirty-Seven SIGCSE Technical Symposium on Computer Science Education*, Houston, TX, March 2006, pages 318–322. (Acceptance rate 35.4%, 294 submitted, 104 accepted)

V.W. Marek, I. Pivkina, and M. Truszczyński. “Approximating answer sets of unitary Lifschitz-Woo programs”, in *Logic Programming and Nonmonotonic Reasoning, 8th International Conference, LPNMR’05*, volume 3662 of Lecture Notes in Artificial Intelligence, pages 66-78. Springer, 2005.

I. Pivkina and V. Kreinovich. “Minimality of Solution Update in Conflict Resolution: An Application of Revision Programming to von Neumann-Morgenstern Approach”, in *International Journal of Intelligent Systems*, volume 20, no. 9, pp. 939-956 (2005).

I. Pivkina, E. Pontelli, and T.C. Son. “Revising Knowledge in Multi-Agent Systems Using Revision Programming with Preferences”, in *Computational Logic in Multi-Agent Systems, 4th International Workshop, CLIMA 2004, Fort Lauderdale, FL, USA, January 6-7, 2004, Revised Selected and Invited Papers*, volume 3259 of Lecture Notes in Artificial Intelligence, pages 134–158. Springer, 2004. (Acceptance rate 44%, 25 submitted, 11 accepted)

I. Pivkina, E. Pontelli, and T.C. Son. “Revising Knowledge in Multi-Agent System Using Preferences”, in *Proceedings of the Fourth International Workshop on Computational Logic in Multi-Agent Systems, CLIMA IV, Fort Lauderdale, FL, USA, January 6-7, 2004*, pages 126–142. (Acceptance rate 52%, 25 submitted, 13 accepted)

V.W. Marek, I. Pivkina, and M. Truszczyński. “Annotated revision programs”, in *Artificial In-*

telligence, volume 138(1–2), pp. 149–180 (2002).

V.W. Marek, I. Pivkina, and M. Truszczyński. “Annotated revision programs”, in *Logic Programming and Nonmonotonic Reasoning, 5th International Conference, LPNMR’99*, volume 1730 of *Lecture Notes in Artificial Intelligence*, pages 49–62. Springer, 1999.

V.W. Marek, I. Pivkina, and M. Truszczyński. “Revision programming = logic programming + constraints”, in *Computer Science Logic, 12th International Workshop, CSL’98*, volume 1584 of *Lecture Notes in Computer Science*, pages 73–89. Springer, 1999.

I.V. Pivkina. “Synthesis of solution of simple logical problems in semantic programming”. Refereed collection of papers *Vychislitelnye Sistemy (Computer Systems)* No. 139, *Teoriya Vychisl. i Yazyki Specifikacii* (1991), pp. 48–64, 189. (Russian)

I.V. Pivkina. “An extension of a theorem of Moses”. *Proceedings of the XXVIII All-Union Scientific Student Conference “The Student and Scientific-Technological Progress”* (Novosibirsk, 1990), pp. 47–52, Novosibirsk. Gos. Univ., Novosibirsk, 1990. (Russian)

Abstracts and Proceedings

N. Al-Shanableh, I. Pivkina and K. Robinson. Predicting the Number of Multiple Chronic Conditions in Older Adults in Us-Mexico Border Using Rapidminer. In *Abstracts of the 2016 SIAM Conference on the Life Sciences, Boston, MA, July 12, 2016*.

I. Pivkina and M.C. Mariani. Analyzing Financial Indices with Machine Learning Techniques. In *Abstracts of the 1032nd AMS Meeting. Special Session on Financial Mathematics: The Mathematics of Financial Markets and Structures in the 2007 Fall Western Section Meeting of the AMS, Albuquerque, NM, October 13-14, 2007*.

I. Pivkina and V. Kreinovich. An Application of Revision Programming to von Neumann-Morgenstern Approach in Conflict Resolution. At <http://drops.dagstuhl.de/portals/05171/> In *Abstracts Collection of Dagstuhl Seminar 05171 “Nonmonotonic Reasoning, Answer Set Programming and Constraints”*, 2005.

I. Pivkina. Lamé Project for Computer Science Students. In *Abstracts of Papers presented at MathFest 2005, Albuquerque, NM, August 4-6, 2005*.

A.A. Vikentyev, S.S. Goncharov, I.V. Pivkina, M.V. Korovina and A.S. Morozov. A course of mathematical logic and its computer support. In *Proceedings of International Scientific Methodical Conference “New Information Technologies in University Education”*, Novosibirsk (1995), pp. 32–33. (Russian)

A.S. Morozov, I.V. Pivkina and N.A. Kirpotina. Complex of programs for studying of mathematical logic. In *Proceedings of Russian Scientific Methodical Conference “New Information Technologies in University Education”*, Novosibirsk (1994), pp. 137–152. (Russian)

Technical Reports and Preprints

N. Alsharman and I. Pivkina. Unsupervised Summarization via Cliques Algorithm. *Authorea*, January 24, 2020, DOI:10.22541/au.157989769.93139010.

I. Pivkina and V. Kreinovich. Finding Least Expensive Tolerance Solutions and Least Expensive Tolerance Revisions: Algorithms and Computational Complexity. Departmental technical reports (CS) 207, University of Texas at El Paso, UTEP-CS-06-37, 8/2006.

I. Pivkina. Defining Well-Founded Semantics for Revision Programming. Technical Report NMSU-CS-2005-001, New Mexico State University, Computer Science Department, 2005.

PRESENTATIONS AND COLLABORATIONS

Conference Sessions

Session chair for the Special Session “Historical Sources as a Teaching Tool” at the 40th ACM Technical Symposium on Computer Science Education (SIGCSE 2009), March 4-7, 2009, Chattanooga, TN. Presenters: I. Pivkina, D. Ranjan, J. Lodder (New Mexico State University).

Session leader for the Birds of a Feather (BOF) session “Recruiting High-School Women into Computer Science” at Grace Hopper Celebration for Women in Computing conference, October 1-4, 2008, in Keystone Resort, Colorado. Presenters: I. Pivkina (NMSU), J. Francioni (Winona State University), A. Q. Gates (University of Texas at El Paso), L. Leventhal. (Bowling Green State University), E. Pontelli (NMSU).

Conference Talks

Implementing Writing Projects in Computer Science. The Writing to Think: How Writing Improves Learning Conference, NMSU, April 6, 2018.

Peer Learning Assistants in Undergraduate Computer Science Courses. 2016 IEEE Frontiers in Education Conference (FIE 2016), October 12-15, 2016, Erie, PA.

Adoption of a Three-part Approach in a Discrete Mathematics Course. The 6th Annual Consortium for Computing Sciences in Colleges Southwest Regional Conference (CCSC:SW 2013), April 5-6, 2013, San Marcos, CA.

Original Historical Sources in Data Structures and Algorithms Courses. The 4th Annual Consortium for Computing Sciences in Colleges Southwest Regional Conference (CCSC:SW 2011), April 1-2, 2011, Los Angeles, CA.

Discovery of Huffman Codes and other Projects. The 5th Joint NMSU/UTEP Workshop on Mathematics, Computer Science, and Computational Sciences, April 4, 2009, Las Cruces, NM.

Young Women in Computing: Lessons Learned from an Educational & Outreach Program. The 40th ACM Technical Symposium on Computer Science Education, SIGCSE 2009, March 4-7, 2009, Chattanooga, TN.

Teaching mathematics and Computer Science with Primary Historical Sources. The 4th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences, November 8, 2008, El Paso, Texas.

Analyzing Financial Indices with Machine Learning Techniques. Special Session on Financial Mathematics: The Mathematics of Financial Markets and Structures in the 2007 Fall Western Section Meeting of the AMS, Albuquerque, NM, October 13-14, 2007.

Mentoring. 18th annual Wakonse Conference on College Teaching, May 24-29, 2007, Michigan.

A Project in Algorithms based on a Primary Historical Source about Catalan Numbers. Technical Symposium on Computer Science Education, SIGCSE 2006, March 1-5, 2006, Houston, Texas.

Approximating Answer Sets of Unitary Lifschitz-Woo Programs. LPNMR 2005. 8th International Conference on Logic Programming and Nonmonotonic Reasoning, September 5-8, 2005, Diamante, Italy.

Lamé Project for Computer Science Students. MathFest 2005. The Annual Summer Meeting of the Mathematical Association of America, August 4-6, 2005, Albuquerque, New Mexico.

An Application of Revision Programming to von Neumann-Morgenstern Approach in Conflict Resolution. Dagstuhl Seminar 05171 - Nonmonotonic Reasoning, Answer Set Programming and Constraints. April 24-29, 2005, Dagstuhl, Germany.

Revising Knowledge in Multi-Agent System Using Preferences. Fourth International Workshop on Computational Logic in Multi-Agent Systems (CLIMA IV), January 6-7, 2004, Fort Lauderdale, FL.

Revision Programming with Preferences. Workshop on Logic Programming, Planning, and AI, August 21-22, 2003, Las Cruces, New Mexico.

Annotated Revision Programs. LPNMR'99. 5th International Conference on Logic Programming and Nonmonotonic Reasoning, December 2-4, 1999, El Paso, Texas.

Revision Programming = Logic Programming + Constraints. Midwest Theory Day, December 5th, 1998, School of CTI, DePaul University.

Revision Programming = Logic Programming + Constraints. Annual Conference of the European Association for Computer Science Logic (CSL'98), August 23-28, 1998, Brno, Czech Republic.

Poster Presentations

“Teaching and Learning via Original Historical Sources”. Poster presentation. SIGCSE 2010. Technical Symposium on Computer Science Education, March 10-13, 2010. (Acceptance rate 55%, 88 submitted, 48 accepted)

“Historical Projects in Computer Science Education”. Poster presentation (with J. Barnett, G. Bezhanishvili, H. Leung, J. Lodder, D. Pengelley, D. Ranjan). SIGCSE 2008. Technical Symposium on Computer Science Education, March 12-15, 2008. (Acceptance rate 75%, 75 submitted, 56 accepted)

“Analysis and Application of Performance Prediction Tools”. Poster (with M. Ballyk, J. Cook, P. Mallapragada, M. Mitchell, S. Schibel). SC06, the International Conference on High Performance Computing, Networking and Storage, November 2006, Tampa, FL.

“Analyzing Financial Indices with Machine Learning Techniques”. Poster presentation (with M. Mariani). 6th Annual URC Research and Creative Activities Fair, NMSU, October 6, 2006.

“Analyzing Financial Indices with Machine Learning Techniques”. Poster presentation (with M. Mariani). NMSU Women's History Month Program "Building the Future: Women in Technology and Science", March 2007.

Collaboration Visits and Seminar Talks

Visited and collaborated with Prof. C. Elkan, University of California in San Diego, 2010.

Talk “Research review: AI” at the Department of Computer Science Board of Advisors meeting, January 31, 2008, NMSU.

Visited and collaborated with Prof. W. Marek and Prof. M. Truszczyński, University of Kentucky, 2005.

Visited and collaborated with Prof. V. Kreinovich, University of Texas at El Paso, 2003, 2006.

Seminar Talk “Revision Programming”, Department of Computer Science, University of Texas at El Paso, September 5, 2003.

Seminar Talk “Introduction to Constraint Satisfaction”, Department of Computer Science, NMSU, November 21, 2003.

Seminar Talk “Well-Founded Semantics for Revision Programs”, Department of Computer Science, NMSU, July 2002.

Seminar Talk “Revision Programming”, Department of Computer Science, NMSU, Sep-Oct 2002.

TEACHING AND ADVISING

Courses Taught at NMSU

Undergraduate:

CS 151 / 451 C++ Programming.	Spring 2021, Fall 2021, Spring 2022, Fall 2022, Spring 2023.
CS 172 Computer Science I.	Fall 2014, Spring 2015, Fall 2016, Spring 2020, Fall 2021, Fall 2022, Spring 2023, Summer 2023, Fall 2023.
CS 271 Object Oriented Programming.	Spring 2019, Fall 2020, Fall 2023.
CS 272 Introduction to Data Structures.	Spring 2006, Spring 2007, Fall 2007, Spring 2009, Spring 2011, Fall 2012, Spring 2016, Spring 2017, Spring 2018, Spring 2021, Spring 2022.
CS 278 Discrete Math for Computer Science.	Fall 2009, Fall 2011, Fall 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Spring 2022, Spring 2023.
CS 372 Data Structures and Algorithms.	Fall 2003, Spring 2005, Fall 2005, Fall 2006, Fall 2007, Spring 2008, Fall 2008, Spring 2011, Spring 2012, Spring 2013, Fall 2013, Spring 2014, Fall 2014, Fall 2015, Spring 2017, Spring 2018, Spring 2019, Spring 2020, Spring 2021.
CS 475 Artificial Intelligence 1.	Fall 2003, Fall 2004, Spring 2006, Spring 2012, Spring 2016.

CS 482 Database Management Systems. Fall 2008.

Graduate:

CS 482 / 502 Database Management Systems. Fall 2008.

CS 488 / 508 Data Mining. Fall 2017, Fall 2018.

CS 475 / 505 Artificial Intelligence 1. Fall 2003, Fall 2004, Spring 2006, Spring 2012, Spring 2016.

CS 575 Artificial Intelligence 2. Fall 2002, Spring 2004, Fall 2006, Fall 2011.

CS 461 / CS 579 Logic Programming. Fall 2004.

CS 479 / 579 Machine Learning. Spring 2005, Spring 2015.

CS 479 / CS 579 Data Mining. Spring 2007, Fall 2009, Fall 2013.

CS 510 Automata, Languages, Computability. Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023.

CS 579 Foundations of Constraint Satisfaction. Spring 2003.

Other Courses Taught

Google Tech Exchange:

Applied Data Structures, Faculty Co-Instructor, Spring 2023.

At the University of Kentucky:

CS215, Introduction to Program Design, Abstraction and Problem Solving (Summer 2001, Spring 2002);

CS221, First Course in Computer Science for Engineers (Fall 2001);

CS101, Introduction to Computing (Summer 1996, Fall 1996, Spring 1997);

Recitation sessions for CS275, Discrete Mathematics (Spring 2001).

At Novosibirsk State University, Russia:

Recitation sessions for Theory of Algorithms (Fall 1994);

Recitation sessions for Mathematical Logic (Spring 1995).

Graduate Student Advising

Advisor for CS Doctorate student Nesreen Al-Sharman (Dissertation: “Automatic Text Summarizers”. She graduated in Summer 2018.)

Advisor for Interdisciplinary Doctorate student James Obert (Dissertation: “Differentiated Multipath Security in Fixed Bandwidth Networks”. He graduated in 2015.)

Advisor for CS Masters student Hasan Al-Qudah (Project: ”Developing a long time series drought impact dataset using machine leaning”. He graduated in Summer 2021.)

Advisor for CS Masters student Jithin Jacob Benjamin Jacob (Project: ”Multi-Agent Reinforcement game using Q-Table”. He graduated in Fall 2020.)

Advisor for CS Masters student Sreeja Matturu (Project: ”Using Statistical Tests to Evaluate Students Performance from an Online Interactive Tool (ZyBooks)”. She graduated in Summer 2020.)

Advisor for CS Masters student Ranjini Basavaraj Thimmannanavar (Project: ”Predicting Length of Stay using Data Mining Techniques for Pulmonary Heart Disease”. She graduated in Spring 2020.)

Advisor for CS Masters student Muhammad Aamir Iqbal (Project: ”Breast Cancer Classification with Keras using Multiple Convolutional Neural Networks”. He defended in December 2019.)

Advisor for CS Masters student Sainikhitha Thooti (Project: ”A Study of Imbalanced Classification Problem to Predict Hospital Re-admissions”. She graduated in December 2019.)

Advisor for M.S. in Bioinformatics student Mohammad Javad Najaf Panah (Project: “Pentapeptide Repeat gene family diversification in *Leucaena trichandra* and other legume plants through high-throughput sequence analysis of genome and transcriptome data”. He graduated in December 2019.)

Advisor for CS Masters student Lakshmi Prasanna Gurrala (Project: “Use of Data Mining Techniques to Predict Length of Stay of Pulmonary Heart Disease, Coronary Atherosclerosis and Other Heart Disease Patients”. She graduated in Spring 2018.)

Advisor for CS Masters student Divya Challa (Project: “Effects of Timeliness in Completing Reading Assignments on Students’ Performance”. She graduated in Spring 2018.)

Advisor for CS Masters student Hanadi Alkhadim (Project: “Mining Cardiotocographic Data to Predict Pathologies”. She graduated in Spring 2018.)

Advisor for CS Masters student Nicholas Nelson (Project: “Daily Fantasy Sports Prediction with Machine Learning”. He graduated in December 2017.)

Advisor for CS Masters student Samuel Djiani (Project: “PhaseCDI: Inverse Problem of X-Ray Diffraction”. He graduated in Spring 2017.)

Advisor for CS Masters student Khaznah Alshammari (Project: “Relationship between Time Management in Courses with Online Interactive Textbooks and Students’ Performance”. She graduated in Spring 2017.)

Advisor for CS Masters student Sofia Fatima (Project: “Classification of Copepods in Sinkholes”. She graduated in 2016.)

Advisor for CS Masters student Fereshteh Soltani (Project: “Mining Healthcare Data for Predicting Hospital Readmissions”. She graduated in 2016.)

Advisor for CS Masters student Amirreza Barin (Project: “A Prediction for Students’ Performance using Data Mining Techniques”. He graduated in 2016.)

Advisor for M.S. in Bioinformatics student Bahar Sayoldin (Project: “Data Mining in Capsicum Species”. She graduated in 2014.)

Advisor for CS Masters student Suryateja Paruchuri (Project: “Design and Implementation of a Web Based Room Management System”. He graduated in 2014.)

Advisor for CS Masters student Ranjith Kumar Molgu (Project: “Data Mining for Target Marketing”. He graduated in 2013.)

Advisor for CS Masters student Aditya K. Madhira (Project: “Design and Implementation of a Web Based and Mobile Library Management System”. He graduated in 2013.)

Advisor for CS Masters student Kameshwara Santosh Sikha (Project: “Prediction of user ratings for music dataset”. He graduated in 2012.)

Advisor for CS Masters student Rajkumar Goenka (Project: “Web Applications for Learning Discrete Mathematics and Computer Science via Primary Historical Sources”. He graduated in 2010.)

Advisor for CS Masters student Venkata Rakesh Mogillapalle (Project: “Database Tutorial”. He graduated in 2010.)

Advisor for CS Masters student Lakshimi Narayana Sagar Yenda (Project: “Mining of Stock Data (clustering in stock prices)”. He graduated in 2010.)

Advisor for CS Masters student Jason Kuriakose (Project: “Online Auction (web application in .NET)”. He graduated in 2010.)

Advisor for CS Masters student Anu Payyapilly (Project: “Data Mining Applications (Stock

Data)". She graduated in 2010.)

Advisor for CS Masters student Bader Albelwi (Project: "Low cost whiteboard (using Wii technology)". He graduated in 2010.)

Advisor for CS Masters student Srikanth Kudumula (Project: "Web application for graduate admissions". He graduated in 2009.)

Advisor for CS Masters student Sanatkumar Bhobe (Project: "Web Application in .NET - Smart Shopping Website". He graduated in 2009.)

Advisor for CS Masters student Sheetal Kumar Jain (Project: "Analysis of Biological Data Using Data Mining Applications". He graduated in 2008.)

Advisor for CS Masters student Amjad Abu-Baker (Project: "Robots in Computer Science Education". He graduated in 2007.)

Advisor for CS Masters student Goutham Chinnapolamada (Project: "Statistical Modeling". He graduated in 2007.)

Advisor for CS Masters student Padma Vath Mallapragada (Project: "Analysis and Applications of Performance Prediction Tools". She graduated in 2006.)

Advisor for CS Masters student Senlin Liang (Project: "Symmetry breaking in Logic Programming". He graduated in 2006.)

Advisor for CS Masters student Jacob Blumberg (Project: "Developing the Best Intelligent Agent to Play Ataxx!". He graduated in 2005.)

Doctoral committee member for CS students: Emad Saad (graduated in 2005), Chongbing Liu (graduated in 2008), Hung Viet Le (graduated in 2007), Iyad Abu Doush (graduated in 2009), Mustafa Hammad (graduated in 2010), Abdel Rahman Al-Ghuwairi (graduated in 2012).

Masters' committee member for CS students: Jose Carlos Cabrera Zuniga, Bharath Vinay Kanagiri, James Zhang, Vineel Reddy Kota, Balakrishna Dharmana, Michael A. Dandini, Celine Guibert, Anisha Thonour, Mayur Palankar, Durga B. Pola, Qutaiba Mahmoud, Jeff Donner, Lin Zhang, Saurabh Gupta, Ganapathineedi Sridurga Shilpa, Motchanandham Vivekanandhan Kanchana, Sujatha Ancha, Aditya Madadi, Gholamali Rahnavard, Mahmoud Sharifi, Mitra Solgi, Lakshmi Yellapragada, Mounika Challa.

Doctoral committee member for non-CS students: Hamed Obiedat, Randhir Deo, John Sanders.

Masters' committee member for non-CS students: Vadi Mahitha Prasad, Uyen Pham, Sarah Holden, Bala Acharya Vamsi Kanumuri, Jesus Arredondo, Srinivasa Jaya Nithin Sagi, Zhuming Ye, Nagesh Babu Kalava, Ibrahim Jawarneh.

Undergraduate Research Advising

I worked with an undergraduate student, Hang Pham Minh Ngo, on a project "Predicting Hospital Readmissions", Fall 2017 - Spring 2018.

I worked with an undergraduate student, Ryan Kubinski, on a Robotics project, Fall 2006 - Spring 2007.

PROFESSIONAL ACTIVITIES AND SERVICE

Program Committee Membership

Member of the International Program Committee of the 17th annual Industrial Simulation Conference (ISC'2019), June 2019, Lisbon, Portugal.

Member of the International Program Committee of the 16th annual Industrial Simulation Conference (ISC'2018), June 2018, Ponta Delgada, Portugal.

Member of the International Program Committee of the Future Business Technology Conference (FUBUTEC 2015) in Statistical Analysis and Data Mining of Business Processes track, April 2015, Lisbon, Portugal.

Member of the International Program Committee of the Future Business Technology Conference (FUBUTEC 2014) in Statistical Analysis and Data Mining of Business Processes track, April 2014, Novotel, Bruges, Belgium.

Member of the International Program Committee of the Future Business Technology Conference (FUBUTEC 2013) in Statistical Analysis and Data Mining of Business Processes track, June 2013, Lincoln, UK.

Member of the International Program Committee of the Future Business Technology Conference (FUBUTEC 2012) in Statistical Analysis and Data Mining of Business Processes track, February 2012, Bucharest, Romania.

Member of the International Program Committee of the Future Business Technology Conference (FUBUTEC 2011) in Statistical Analysis and Data Mining of Business Processes track, April 18-20, 2011, British Institute of Technology and Ecommerce, London, UK.

Member of the International Program Committee of the 7th ACIS International Conference on Software Engineering Research, Management and Applications (SERA2009), December 2-4, 2009, Haikou, China.

The Special Session on Answer Set Programming at the Eleventh International Workshop on Non-monotonic Reasoning (ASP at NMR 2006).

Organizing Committee Membership

3rd International Compulog/ALP Summer School on Logic Programming and Computational Logic (with E. Pontelli and T.C. Son), Las Cruces, NM, July 24-27, 2008.

5th Joint NMSU/UTEP Workshop on Mathematics, Computer Science, and Computational Sciences (with J. Harding and K. Villaverde), NMSU, April 4, 2009.

3rd Joint NMSU/UTEP Workshop on Mathematics and Computer Science (with J. Harding and K. Villaverde), NMSU, April 26, 2008.

Refereeing and Reviewing

Proposal Review

National Science Foundation Panel. Virtual. November 2023.

National Science Foundation Panel. The panel met in Washington D.C. in July 2012.

National Science Foundation Panel. The panel met in Washington D.C. in July 2007.

Journals

Journal of Machine Learning Research (2010)

Theory and Practice of Logic Programming journal (2003)

The Computer Journal (2004, 2005)

Data & Knowledge Engineering (DKE) Journal (2009)

Conferences

17th Annual Industrial Simulation Conference (ISC'2019), Lisbon, Portugal.

16th annual Industrial Simulation Conference (ISC'2018), Portugal.

IEEE Frontiers in Education Conference (FIE) 2017, Indianapolis, IN.

2017 3rd International Conference on Education (ICOED 2017), Malaysia.

IEEE Frontiers in Education Conference (FIE) 2016, Erie, PA (October 2016).

25th annual Conference of the Consortium for Computing Sciences in Colleges South Central Region, Austin, TX, USA (April 2014).

FUBUTEC 2011, Future Business Technology Conference (2011)

ACIS International Conference on Software Engineering Research, Management and Applications (2009)

International Conference on Logic Programming (ICLP) (2003, 2005, 2007, 2008, 2009)

Convegno Italiano di Logica Computazionale (CILC09) (2009)

International Workshop on Answer Set Programming (ASP) (2007)

International Symposium on Practical Aspects of Declarative Languages (PADL) (2007, 2009)

International Workshop on Computational Logic in Multi-Agent Systems (CLIMA) (2002, 2004)

International Conference on Logic Programming and Nonmonotonic Reasoning (LPNMR) (2004)

European Conference on Logics in Artificial Intelligence (JELIA) (2002)

International Workshop on Non-Monotonic Reasoning (NMR), Special Session on Answer Set Programming (2006)

International Conference on Principles and Practice of Declarative Programming (PPDP) (2004)

International Symposium on Functional and Logic Programming (FLOPS) (2008)

National Conference on Artificial Intelligence (AAAI) (2005)

Books

Chapters of the textbook “Data Structures and Algorithms in Java” by Dan Myers (Cambridge University Press), 2022.

Sections of the proposed textbook “Technical Skills Essentials zyBook” (ZyBook), 2022.

“Data Structures in C++ Including Breadth and Laboratories” by Angela B. Shiflet (Course Technology).

Chapters of the proposed text book “Algorithms: A Top-Down Approach” by Rodney R. Howell (John Wiley & Sons, Inc.).

Syllabi

College Board CS Advanced Placement Course Audit Reviewer (2007).

Department Service

Chair of the Diversity and Retention Committee 2019 - present.

Member of the NCWIT Extension Services Team 2018 - present.

Chair of the Outcomes Assessment Committee, 2011 - 2019.

Chair of the Undergraduate Committee, 2013 - 2019.

Chair of the Graduate Admissions Committee, 2008 - 2009.

Chair of the Library Committee, CS Department, 2006 - 2008.

Member of Promotion and Tenure Committee, CS Department.

Member of the Graduate Committee, CS Department.

Member of the Research Committee, CS Department.

Conducted Fall 2005, Spring 2013, and Spring 2017 PhD Qualifying Exams in the department.

Served as an organizer for two departmental seminars: Graduate Seminar (together with Jing He) (2003-2004) and KLAP (Knowledge representation, Logic, and Advanced Programming Laboratory) seminar (2003-2005).

Advising undergraduate CS students.

Attended NSF Computing Research Infrastructure 2007 PI meeting as representative of the PI E. Pontelli, gave a talk "Pathways in Computer Science" for him, June 3-6, 2007, Boston, MA.

College of Arts and Sciences Service

Member of the College Graduate Affairs Committee, 2019 - present.

Member of the College Curriculum and Educational Policies Committee, 2015 - 2017.

I helped with Arts & Sciences Advising of new freshmen, 2005, 2006, 2015.

University Service

Served as session chair for the Graduate Research and Arts Symposium, March 18, 2015.

Served as session chair for the Graduate Research and Arts Symposium, March 10, 2014.

Served as session chair for the Graduate Research and Arts Symposium, March 12, 2013.

Served as Judge for the 2012 Graduate Research and Arts Symposium, March 12, 2012.

Served as Judge for the 2011 Graduate Research and Arts Symposium, March 2, 2011.

Serve on the ADVANCE Faculty Development Committee, New Mexico State University, 2004-2009. Chair of the Committee in 2008-2009.

Participated as a facilitator in the NSF-PAID training program for the Alliance for Faculty Diversity Committees on March 30-31, 2007, at the University of New Mexico.

Serve on the Advisory Board of the Teaching Academy, New Mexico State University, 2004-2008.

Served as Judge for the Graduate Research and Arts Symposium, NMSU, 2007, 2008.

Serve as a Head Coach for Peer Coaching for Classroom workshop at the Teaching Academy, New Mexico State University, Spring 2006, Spring 2008.

Community Service

Computer Science Advanced Placement Exam reader, 2006, 2007, 2008, 2009.

Served as a mentor for a student for the BRIDGE Program to American Indian Students in Community Colleges, Summer 2006.

Served as Head Category Judge for Southwestern New Mexico Regional Science and Engineering Fair, Corbett Center, New Mexico State University, March 12, 2005.

Served as Judge for New Mexico Best Competition, October 23, 2004.

Served as Judge for Southwestern New Mexico Regional Science and Engineering Fair, Corbett Center, New Mexico State University, March 15, 2003.

Gave a presentation about Russia in Russian history class of Dr. Nathan Brooks (Department of History), April 13 2005.

Served as Treasurer and VP of Education of Los Chismosos Toastmasters Club, Las Cruces, NM, 2006-2007.

Memberships

Association for Computing Machinery (ACM) 2004, 2019-current.

The Consortium for Computing Sciences in Colleges, regular member 2011-2014.

ACM Special Interest Group on Computer Science Education (SIGCSE) 2006-2009.

AcademicKeys Who's Who in Sciences Higher Education 2004-2007.

Text and Academic Authors 2003.

Selected Professional Development Activities

Participated in the "Lighthouse for Computer Science: Professional Development Workshop for College Computing Faculty and Staff", NMSU, August 2019.

Participated in the "2019 Facebook Train The Trainer (T3) Faculty Summit", Menlo Park, CA, August 2019.

Attended 2019 NCWIT Summit on Women and IT: where conversations lead to change, Nashville, TN, May 14 - May 16, 2019.

Attended 2018 NCWIT Summit on Women and IT: where conversations lead to change, Grapevine,

TX, May 15 - May 17, 2018.

Attended "The Writing to Think: How Writing Improves Learning" Conference, NMSU, April 6, 2018.

Active member of the Teaching Academy at NMSU.

Participated in Writing Across the Curriculum Faculty Seminar, NMSU, May 11-14, 2009.

Participated in the GRASP (Gaining Retention & Achievement for Students Program), NMSU, Fall 2003.

Participated in the Boot Camp for Profs, July 19-26, 2003, in Leadville, CO.

Participated in the FORWARD to Professorship conference, May 20-22, 2003, at Gallaudet University, Washington, D.C.

Participated in the Short Course "Peer Coaching for Classroom and Distance Educators", NMSU, (Spring 2004, Spring 2006, Spring 2008).

Attended Affinity Research Group workshops on 3/31/2006 in NMSU and on 9/8/2006 in UTEP.

Attended National Science Foundation Regional Grants Conference, St. Louis, MO, October 4-5, 2004.

Attended Grace Hopper Celebration of Women in Computing 3 times: in Chicago, October 6-9, 2004, in Orlando, October 17-20, 2007, and in Keystone, CO, October 1-4, 2008.

Attended Women in Engineering Programs & Advocates Network (WEPAN 2004) National Conference, Albuquerque, NM, June 6-9, 2004.

Participated in Computational Science Workshop for Underrepresented Groups, January 3-10, 2007, at the University of Southern California, Los Angeles, CA.

Participated in more than 250 hours of training (seminars, workshops, short courses, etc.) at the Teaching Academy at NMSU.