

## Curriculum Vitae

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### EDUCATION

- Ph.D. The University of Texas, Austin, Texas. Computer Science Education, May, 1995.
- M.Ed. Southwest Texas State University, San Marcos, Texas. August 1987.
- B.S. Texas A&M University, College Station, Texas. August 1981.

### PROFESSIONAL EXPERIENCE

- Professor, Computer Science, St. Edward's University, Austin, Texas, August 2005 to present.  
Department Head 2008-present.
- Associate Professor, Computer Science, St. Edward's University, Austin, Texas, August 2000-2005, tenured August 2000. Department Head 2000-2002.
- Assistant Professor, Computer Science, St. Edward's University, Austin, Texas, August 1996 to August 2000. Served as Department Head 1997-2000.
- Instructor, Computer Science Department, St. Edward's University, Austin, Texas, August 1989 to August 1996.
- Independent Contractor for Educational Technology at Waco Independent School District, May, 2002.
- Independent Contractor for Educational Technology at Comal Independent School District, November 1999 to March 2000.
- Independent Contractor Instructor for C Programming courses at IBM Corp., Austin, Texas 1990, 1991, and 1992.
- Instructor, Computer Science Department, Southwest Texas State University, San Marcos, Texas. August 1987 to August 1989.
- Assistant Instructor, Computer Science Department, Southwest Texas State University, San Marcos, Texas. August 1985 to August 1987.
- High School Science/Physical Education Teacher, Iola High School, Iola, Texas. August 1981 to May 1983.

### PROFESSIONAL HONORS

- Outstanding Advisor Award, 2003-2004, School of Natural Sciences.
- Teaching Excellence Award, 2001-2002, St. Edward's University.
- Selected for School of Natural Sciences Outstanding Teacher, St. Edward's University 2000-2001.
- Selected for School of Natural Sciences Outstanding Teacher, St. Edward's University, 1992-93.

### PROFESSIONAL ACTIVITIES

- President, Consortium for Computing Sciences in Colleges(CCSC) National Board, 2012-2014.

- Vice-President, Consortium for Computing Sciences in Colleges(CCSC) National Board, 2010-2012.
- [Program/Papers Chair, South Central Regional Editor](#) for Consortium for Computing Sciences in Colleges (CCSC), [South Central Region](#), 2004-2005, 2005-2006, 2006-2007, 2007-2008, 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015.
- Conference attendee, SIGCSE conference, 2010-2014, CCSC South Central 2002-2015.
- Computer Science Section Chair, Texas Academy of Science Conference, March, 2005, 2006, 2008.
- Computer Science Section Vice-Chair, Texas Academy of Science Conference, March, 2007.
- Panelist, [Women in Natural Sciences Summer Workshops](#) , The University of Texas at Austin, July 2004.
- Panelist, "Assessment at Small Colleges and Universities", Consortium for Computing Science in Colleges (CCSC), Austin Community College, Austin, Texas, April 2004.
- Computer Science Section Chair, Texas Academy of Science Conference, March, 2004.
- Panelist, [Women in Natural Sciences Summer Workshops](#) , The University of Texas at Austin, June 2003, August 2003.
- Panelist, "[Managing a Small Computing Department](#)", Consortium for Computing Sciences in Colleges (CCSC)Conference, Jackson, Mississippi, April 2003.
- Texas Academy of Science, Conference attendee. Nacogdoches, Texas. March, 2003.
- Invited Panelist, Preparing Future Faculty at The University of Texas at Austin, September, 2002 and September 2001.
- Co-author, second edition, [Using C++: An Introduction to Programming](#) by Julien Hennefeld, Laura Baker, & Charles Burchard, Brooks/Cole, 2003. ISBN 0-534-37484-0.
- Technology consultant - Waco Independent School District, May, 2002.
- Technology consultant - Comal Independent School District, November 1999-March 2000.
- Panelist, *Promotion and Tenure at Small Colleges* South Central Conference of Consortium for Computing Sciences in Colleges Conference, April, 2001.
- Conference attendee, South Central Conference of Consortium for Computing Sciences in Colleges, Amarillo, Texas, April, 2001.
- Faculty sponsor St. Edward's University Student Chapter of the ACM, 1999-2000, 2000-2001, 2001-2002.
- Programming Team Faculty Sponsor, ACM programming contest, 1993-2002.
- Co-Chairman, South Central Conference of Consortium for Computing Sciences in Colleges, April 16-17, 1999, St. Edward's University, Austin, Texas.
- South Central Representative, Board for Consortium for Computing Sciences in Colleges, 1998-1999, 1999-2000.
- Steering Committee member, [South Central Conference of Consortium for Computing Sciences in Colleges](#), 1997-2000, 2004-present.
- Conference participant, ACM/SIGCSE conference, March, 1999. "Methods for Interaction Among High School and University Computer Science faculty." Panel Presentation, [ACM-SIGCSE](#) conference,Atlanta, Georgia, February, 1998.
- "Global Positioning Systems", Workshop Presentation, UIL Computer Science Conference for AP Computer Science Teachers, Texas Tech University, Lubbock, Texas, September, 1998.
- Author, State of Texas High School University Scholastic League Computer Science Texas High School UIL State Computer Science Exam, 1997-1998.
- Paper referee for ACM-SIGCSE 1995-present.
- Paper referee for Consortium for Computing Sciences in Colleges, 1992-present.
- "Retention of First-Year Computer Science Students", Panel Presentation, South Central Conference of the Consortium for Computing Sciences in Colleges, April, 1997, San Antonio, Texas.
- Session Moderator and Conference participant, South Central Conference of the Consortium for Computing Sciences in Colleges, April, 1997, San Antonio, Texas.

- "AP C++ Subset", Workshop Presentation, UIL Computer Science Conference for AP Computer Science Teachers, Texas Tech University, September, 1997.
- Conference participant, ACM/SIGCSE conference, February, 1997 in San Jose, California.
- Author, State of Texas High School University Scholastic League Computer Science Invitational and Regional Exams, 1996-1997.
- "C++ for AP Computer Science", Workshop presentation, UIL Computer Science Conference for AP Computer Science Teachers, September, 1996 at Lubbock, Texas and at Austin, Texas.
- Session Moderator and Conference participant, South Central Conference of the Consortium for Computing Sciences in Colleges, April, 1996.
- Author, State of Texas High School University Scholastic League Computer Science Invitational and Regional Exams, 1995-1996.
- "Introduction to HTML", Technology Teach-In, St. Edward's University, January, 1995.
- "Introduction to Eudora", Technology Teach-In, St. Edward's University, January, 1996.
- Conference Paper Referee, South Central Conference of the Consortium for Computing Sciences in Colleges, December, 1995.
- Conference Paper Referee, South Central Conference of the Consortium for Computing Sciences in Colleges, December, 1994.
- Presented Faculty Workshop, "Introduction to Computing on Campus", at St. Edward's University Faculty Development Workshop, August, 1994.
- Attended 5 day NSF Chataqua C++ workshop, Dayton, Ohio, May 1994.
- Session Moderator and conference participant, South Central Conference of the Consortium for Computing Sciences in Colleges, Amarillo, Texas, April, 1994.
- Instructor of three 10-week non-credit C Programming courses at IBM Corporation, Austin, Texas, 1993.
- Conference participant, Association of Computer Educators of Texas, San Antonio, Texas September, 1993.
- Conference participant, DMPA conference, Dallas, Texas, November, 1991.
- Major author of proposal for Bachelor of Science Degree in Computer Information Science (CIS) St. Edward's University, 1990. Degree proposal passed Spring, 1991.
- Revised curriculum for CS 31A and CS 31B, Introduction to Computer Assembly Language and Architecture, a two sequence course in Computer Science at St. Edward's University, 1991.
- Developed CIS 18 course for St. Edward's University Spring 1991, Quantitative Applications of Software, 1990.
- Workshop participant 3-M career planning workshop, Austin, Texas, September 1991.
- Conference participant, Artificial Intelligence Symposium, University of Texas, Austin, Texas, November, 1991.
- Conference participant, South Central Conference of the Consortium for Computing Sciences in Colleges Austin, Texas, April 1991 and April, 1990.

## **COURSES TAUGHT**

St. Edward's University

- COSC 4149 - Senior Seminar, COSC 4148 - Undergraduate Research, COSC 4351 - Human Computer Interaction, COSC 4347 - Senior Research Project, COSC 4344 - Artificial Intelligence, COSC 4342 - Compiler Theory and Automata, COSC 3331 - Computer Architecture and Assembly Language, COSC 3332 - Computer Architecture and Machine Organization, COSC 3325 - Ada Programming, COSC 3325 - C Programming, COSC 3314 - Object Oriented Programming with C++, COSC 3314 Object-Oriented Programming with JAVA, COSC 3314 - Web Programming (Perl, PHP, Python), COSC 3325 - Lisp Programming, COSC 3325 - Web Programming (Perl, PHP, AJAX), COSC 3327 - Data Structures and Algorithms, COSC 2331 - Assembly Language Programming, COSC 2328 - Web Programming, COSC 2325 - Computer Science Concepts II, COSC 2125 - Computing Concepts II Laboratory, COSC 1323 - Computing

Science Concepts I, COSC 1123 - Computing Science Concepts I Laboratory, CISC 1318 - Quantitative Applications of Software, COSC 1313 - Programming in Visual Basic, COSC 1301 - Introduction to Problem Solving MCIS 6314 - Web Programming (VB.NET, PHP)

### **Southwest Texas State University**

- CS 3358 - Computer Science II Data Structures, CS 2318 - Assembly Language, CS 2308 - Computer Science I, CS 1318 - Introduction to Computer Science, CS 1308 - Introduction to Computing and Computer Literacy

### **UNDERGRADUATE RESEARCH PROJECTS SUPERVISED**

- "Bark - Mobile App for Dog Lovers", Spring 2015
- "Spanish Verb Conjugations", Summer 2014
- "Sound Visual Representation", Fall 2014
- "FotoFuser", Spring 2013
- "String iOS Word Game", Spring 2013
- "Castle Cannon", Spring 2013
- "ForCupsCake", Spring 2013
- "St. Edward's Residence Life Digital Conversion", Spring 2013
- "Kaleidoscope", Spring 2013
- "Quizomatic", Spring 2013
- "Non-profit Accounting - Setting up the books ", Spring 2013
- "Myoko", Spring 2013
- "DIY 3D Printing", Spring 2013
- "Bookshare", Spring 2013
- "Wild Basin Archive Center", Spring 2013
- "Take Control", Spring 2013
- "SEU Workout Application", Spring 2013
- "Voting System for CCSC", Summer 2011
- "Educational Social Networks", Fall 2010
- "Professional Reviewer/Paper Assignments Project", Fall 2010
- "Computer Science Jobs and Internships Website", Spring 2010
- "Computer Science Exit Survey Website", Spring 2010
- "Karen Chisum Volleyball Website", Spring 2010
- "Anti-Plagiarism Website", Spring 2010
- "Paper/Author/Reviewer Website", Spring 2009
- "Interactive Comic Book Collection", Fall 2009
- "A Patent Docketing Database and Retrieval System", Fall 2009
- "Scanner Monitoring for Workload Production", Fall 2009
- "Flash Guitar Tabs - Website for Aspiring Guitarists", Spring 2008
- "Historical Figures Tutorial and Quiz", Spring 2008
- "Tears of Nifleheim: A Study on Game Artificial Intelligence", Spring 2008
- "A Migrant's Masterpiece: The Life and Legacy of Archbishop Patrick Flores Website", Spring 2008
- "Securing Information on a Computer From Physical Compromise", Fall 2008
- "System Test Hardware Requirements Database", Fall 2008
- "Influence of Resources on a Successful IT Help Desk in an Academic Institution", Fall 2007
- "A Comparison of Hopfield and Bayesian Networks Applied to Pattern Matching and Recognition", Fall 2007

- "Database and Website for Managing Degree Plan Requests for Undergraduate Programs", Fall 2006
- "Mote Database Manipulation", Fall 2006
- "Web Module for Rsync" , Summer 2005
- "Greyhound Text Message Phone Service", Summer 2005
- "Simulating Natural Phenomena Using Photon Mapping Techniques", Summer 2005
- "On-Line Advisor Survey for School of Natural Sciences", Summer 2005
- "Course Visualization Tool", Spring 2004
- "Knights Website Management", Spring 2004
- "Cryptography Investigation", Spring 2004
- "Automated User Access Validation on IBM R/S 6000 servers", Spring 2004
- "Steganography Tool Analysis", Spring 2004
- "Social Work Internship Webpage/DB Management", Spring 2004
- "Palm Pilot Application for Buurma Farms", Spring 2004
- "Scholastic Interactive Tool for Elementary Students", Spring 2004
- "A Parent/Student Meeting Tracking System at Pickle Elementary School", Spring 2004
- "A Case Management Tool for Fraud Investigations", Spring, 1998.
- "NACU Web-based Registration System", Spring, 1998.
- "A Proposal for E10 Metrics for Cluster Tools", Spring, 1998.
- "Monitoring Dialup Activity on an Ascend MAX 4000/4002/4004", Spring, 1998.
- "Financial Aid Database for St. Vincent ", Spring, 1998.
- "Dynamic Link Libraries (DLL) Tracking System", Spring, 1997.
- "PBX Database", Spring, 1997
- "Heavy Equipment Scheduling System", Spring, 1997.
- "Client Tracking Management System", Spring, 1996.
- "Virtual Printer Logging System", Spring, 1996.
- "Applying fuzzy logic to a simple control problem", Spring 1996.
- "Discovering the Minimum System Wait Time for Computer Literate Users", Spring 1995.
- "Galvanic Skin Response as a Method of User Authentication", Spring, 1995.
- "A Comparison and Analysis of Backup and Recovery Methods in the AIX Operating System", Spring, 1995.
- "16-Bit vs. 32-Bit application performance ", Spring 1994.
- "The propagation of the /etc/services file across a heterogeneous UNIX network", Spring 1994.
- "Text Compression Via Genetic Program Induction", Spring 1994.
- "Evaluating the effects of design issues of Expert System Development", Spring 1994.
- "Authenticating Packet Propagation in a Network Environment", Spring 1994.
- "A Comparison of the RISC 6000 and the DEC Workstation," Spring 1993.
- "Natural Language Dictionaries - A Comparison of Methodology, " Spring 1993.
- "An Algorithm to Test the 8061 Analog-to-Digital Converter Using a Teradyne J941 Automatic Tester," Spring 1992. "Detection of Delay Faults in Semiconductor Random Access Memory," Spring 1991.
- "A Comparison of Length Search Pattern and the Optimal Mismatch String Search Algorithms," Spring, 1991.

## PROFESSIONAL ORGANIZATIONS

- [Association for Computing Machinery \(ACM\)](#) and Special Interest Group Computer Science Education (SIGCSE)
- [Consortium for Computing Sciences in Colleges](#)
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## **PROFESSIONAL INTERESTS**

- Artificial Intelligence, Case-based Reasoning, Expert Systems, Group Study Research, Computer Science Education, Computer Science Teacher Education, Programming Languages, Natural Language Processing, Object-Oriented Programming, Compiler Design, Software Engineering.