Dept. of Computer Information Sciences   Office Phone: 785-670-1161
Washburn University, Stoffer Hall, 304D   E-mail: cecil.schmidt@washburn.edu
Topeka, KS. 66621

RANK: Full Professor

EDUCATIONAL BACKGROUND

Kansas State University, Manhattan, KS, Ph.D. in Curriculum & Instruction with emphasis in Educational Computing Design and Online Learning, December 2005

The Wichita State University, Wichita, KS, Master of Science in Computer Science, May 1993

Kansas State University, Manhattan KS, Bachelor of Science in Computer Science, May 1984

ACADEMIC APPOINTMENTS

Full Professor, Department of Computer Information Sciences, Washburn University, Topeka, KS. August 2007 - Present

Associate Professor, Department of Computer Information Sciences, Washburn University, Topeka KS. August 2002 – May, 2007

Assistant Professor, Department of Computer Information Sciences, Washburn University, Topeka KS. August, 1994 – May 2002

Adjunct Instructor, Department of Computer Information Systems, Friends University, Wichita KS. Spring, 1994

Professional Interests

Cognitive Flexibility and Learning Sciences, Database, Data Mining, Data Analytics, and Software Process

OTHER RELEVANT EXPERIENCE

Owner, Independent Contractor, Schmidt Computing, Berryton, KS, from 2007-present
- Provided consulting services related to data modeling, database design, systems analysis and design, data mining, and interactive web development for clients

including Schwab-Eaton LLC., Capital City Oil, Inc., PTMW Inc., Washburn University, and others.

Vice President, Consultant, Business System Resources, Topeka, KS, from 1994-2005.
- Provided software development and project management over various projects including, KPERS replacement project analysis and data modeling, insurance rating packages, annuity prediction tools, tracking software for Kansas Department of Corrections, interactive website development, Y2K replacement project for Boeing, and others.
- Received Certificate of Excellence award, March 1999 from the Boeing Company for outstand consulting effort on three Y2K software conversion projects.

Program Manager, Database Administrator, Boeing Computer Services, Wichita, KS. 1984-1994.
- Database Administrator, Oracle and DB2 from 1992-1994
- Program Manager over the development of a multi-million dollar Installation and Job Planning system supporting manufacturing engineering from 1990-1992.
- Program Manager over the development of a multi-million dollar Capacity Requirements Management System supporting industrial engineering from 1988-1990.
- Program Manager of various factory information systems including roles supporting transition of systems to MRP integration from 1986-1990.
- Systems analyst, programmer from 1984-1986
- Recipient of five unique excellence awards or letters of commendation from Boeing Computer Services and Boeing Military Airplane Company
- Attained APICS certifications in Manufacturing Requirements Planning, Production Activity Control, and Just In Time Manufacturing

PUBLICATIONS

Refereed Journal Articles

Schmidt, C., Sun, W., LaLonde, D., Operationalizing information literacy and technology in a general education computer science course, *Journal of Computing Sciences in Colleges,* Vol. 28, Number 5, May 2013, pp. 176-183.

Schmidt, C., Lessons learned in the design of an undergraduate data mining course, *The Journal of Computing Sciences in Colleges*, Vol. 26, Number 5, May 2011, pp. 189-195.

Eastridge, R., Schmidt C., Solving n-queens with a genetic algorithm and its usefulness in a computational intelligence course, *Journal of Computing Sciences in Colleges*, Volume 23, Number 4, April 2008

Schmidt, C., Higgins, J., and Gliser L., Implementation of an interactive web application using FOSS, a participant-oriented evaluation study, *Journal of Computing Sciences in Colleges*, Vol. 22, Number 4, April 2007

Schmidt, C., Boncella R.J., An online learning engine for ethics education: a proof of concept using business ethics, *Issues in Information Systems*, Vol. VIII, No. 1, 2007.

Schmidt, C., Effects of a case-based reasoning system on student performance in a Java programming course, *Journal of Information Systems Education*, Winter Issue, Vol. 18, No. 4.

Schmidt C., Boncella R. J., A framework for an ethics course for the information technology student, *Issues in Information Systems*, Vol. VII, No. 1, 2006

Schmidt, C., Towards the support of cognitive flexibility in hypertext design, *Journal of Computing Sciences in Colleges*, Vol. 21, Number 4, April 2006.

Schmidt, C., Foundations of case-based reasoning and applications to hypertext, *The Journal of Educational Computing, Design & Online Learning*, Volume 5, Fall 2004

Schmidt C., A Review of the learning theory and architectures in engines for education, *The Journal of Educational Computing, Design & Online Learning*, Volume 4, Fall 2003

Schmidt C., A survey of currently implemented webquests in computer science and computer technology, *The Journal of Educational Computing, Design & Online Learning*, Volume 3, Fall 2002

Schmidt, C., A brief discussion of a special topics class: application development using 4GLs, *The Journal of Computing in Small Colleges*, Vol. 11, Number 4., March, 1996

Book Chapters

An Advanced Course in Application Programming and Design, In Information Technology Education in the New Millennium. Mohammad Dadashzadeh, Al Saber, Sherry Saber, editors, IDEA Group Publishing, ISBN: 1-931777-05-5; 308 Pages; Soft cover; Copyright 2002

Referred Conference Proceedings

Schmidt, C., Rutherford R.R., Ready, J., *An experimental comparison between discrete wavelet transforms with the 1-nn classifier*, Proceedings of the *International Association for Computer Information System International Conference*, October 7-10, 2015.

Sun, W., Schmidt C., Software professionals' job perceptions, *Proceedings of the Nineteenth Americas Conference on Information Systems*, Chicago, Illinois, August 15-17, 2013.

Schmidt, C., Donahue M., Performance of a ternary Bayesian stacked generalization, *Proceedings of the Information Resources Management Association International Conference: Managing modern organizations with information technology*, May, 2005

Hsu, W.H., Schmidt, C., & Louis J.A., Genetic algorithm wrappers for feature subset selection in supervised inductive learning, *Proceedings of the Genetic and Evolutionary Computation Conference* (GECCO-2002), New York, USA, 9-13 July 2002. Morgan Kaufmann 2002, ISBN 1-55860-878-8

Schmidt, C., A filter implementation using a committee machine of wrappers, *Wrappers for Performance Enhancement in Knowledge Discovery in Databases*, IJCAI-2001 Workshop Program Working Notes ML-5 of the Seventeenth International Joint Conference on Artificial Intelligence, Workshop Program, Seattle, Washington, August 4, 2001

Schmidt, C., Implementing capstone requirements into a computer information systems Curriculum, *Proceedings of the Information Resources Management Association International Conference*, Toronto, Ontario Canada, May 20-23, 2001

Schmidt, C., An advanced course in application programming and design, *Proceedings of the Information Resources Management Association International Conference*, Anchorage, Alaska, USA May 21-24, 2000

Schmidt, C., Schmidt, G., Supervision post-audit report, conformity and complexity issues in a Lotus Notes application development environment, In *Proceedings of the Information Resources Management Association International Conference*, May 1998

Schmidt, C., Application development using GeneXus, *Proceedings of the 1997 Information Resources Management Association International Conference*, May, 1997

Schmidt, C., Reengineering the class attendance process using a successive approximation approach, *Proceedings of the Fifteenth Annual Office Systems Research Conference*, March, 1996

Working Papers, Abstracts, and Posters

Schmidt, C., Sun, W., Synthesis of data mining process models: results from a case study, in preparation for submission to the *Journal of Computer Information Systems*, Fall 2015

Sun, W., Schmidt C., A comparison of job perceptions with respect to agile methodology use and control mechanisms, submitted to *Journal of Association of Information Systems* (under revision)

Student Mentored Posters and Presentations

Jeremy Ellision, Detecting denial of service attacks: data mining analysis, *Washburn Apeiron*, Spring 2015

Jared Ready, Rob Roy Rutherford, Exploring the affect of data transformation on classification accuracy of time series databases, *Washburn Transformational Experience*, Spring 2015

Tyler W. Wade, Interoperability Between Python and C++ Libraries, *Washburn Transformational Experience*, Spring 2014

Salavador Lopez Jr., How Large Is Our Government?, *Washburn Aperion*, Spring 2014

Matt J. Rush and Anna M. Lischke, Trends in computer science and computer engineering education with visualization in Python, *Washburn Transformational Experience,* Spring 2011

Matt Mergen, Predator vs. prey 3d Java application, *Washburn Apeiron*, Fall 2007

Gary Crook, Greenstone Digital Library Project, *Washburn Apeiron*, Fall 2007

Johnathan A. King, Solving Rubik's Cube using intelligent search, Washburn Apeiron, Spring 2007

Justin Higgins, Bayesian machine learning, *Washburn Apeiron*, Spring 2007

Angela L. Cowen, Intelligent navigation using LRTA* in a safely explorable corn maze, *Washburn Apeiron*, Spring 2007

Tina Reed, Predator vs. prey using the A* algorithm, *Washburn Apeiron*, Spring 2007

Richard Estridge, Solving n-queens using a genetic algorithm, *Washburn Apeiron*, Spring 2007

Joshua Phelps-Roper, Brent R. Otto, Florence Cheruiyot, Sail-S2.org, *Washburn Apeiron*, 2006

Neal Fultz, Using genetic algorithms to generate optimal strategies for Schwimmin, *Washburn Apeiron*, 2006

Neal Fultz, Web filtering, *Washburn Apeiron*, 2005

Jason Divis, Deborah McIntire, Map your personality to a cartoon profile, *Washburn Apeiron*, 2005

Yue Yang, Classifying music styles using data mining, *Washburn Apeiron*, 2005

Jared P. Dyche, Data Analysis: Predict Performance of Masters Class Athletes, *Washburn Apeiron*, 2004

Neal Fultz, Computer Information Sciences Data Mining and Knowledge Games, *Washburn Apeiron*, 2004

PRESENTATIONS AT PROFESSIONAL CONFERENCES

An experimental comparison between discrete wavelet transforms with the 1-nn classifier, to be presented at the International Association for Computer Information System International Conferenc*e*, October 7-10, 2015.

Operationalizing information literacy and technology in a general education computer science course, presented at the Consortium for Computing in Colleges Central Plains Regional Conference April 2013.

Lessons learned in the design of an undergraduate data mining course, presented at the Consortium for Computing in Colleges Central Plains Regional Conference April 2011.

Solving n-queens with a genetic algorithm and its usefulness in a computational intelligence course, presented at the Consortium for Computing in Colleges Central Plains Regional Conference April, 2008.

Implementation of an interactive web application using FOSS, a participant-oriented evaluation study, presented at the Consortium for Computing in Colleges Central Plains Regional Conference April, 2007.

An online learning engine for ethics education: a proof of concept using business ethics, presented with Boncella, R. J. at the International Association for Computer Information Systems conference, October, 2006

Effects of a case-based reasoning system on student performance in a Java programming course, presented at the International Association for Computer Information Systems conference, October, 2006

A framework for an ethics course for the information technology student, presented with Boncella, R.J., at the International Association for Computer Information Systems conference, October, 2006

Towards the support of cognitive flexibility in hypertext design, presented at the Consortium for Computing in Colleges Central Plains Regional Conference, April 2006.

A Filter Implementation Using a Committee Machine of Wrappers presented at the Wrappers for Performance Enhancement in Knowledge Discovery in Databases, IJCAI 2001 Workshop Program ML-5 of the Seventeenth International Joint Conference on Artificial Intelligence, Workshop Program, Seattle, Washington, August 4, 2001

Real-time Bayesian Network Learning and Inference presented at the Military Personnel Science workshop, Memphis, Tennessee, June 4, 2001, with William Hsu

Design and Implementation of Knowledge Acquisition Tool to Enhance Case-Based Reasoning in Web Courses, presented at the 2001 Information Resources Management Association International Conference, Toronto, Ontario Canada May, 2001, May 20-23 2001, with G. Schmidt and D. Lalonde

Implementing Capstone Requirements into a Computer Information Systems Curriculum presented at the 2001 Information Resources Management Association International Conference, Toronto, Ontario Canada May, 2001, May 20-23 2001

Case-Based Reasoning and Real Time Scheduling, technical presentation to Laboratory for Knowledge Discovery in Databases (KDD) group, Kansas State University, March, 2001

How to Collaborate Between Industry and Academia, discussant at the 2001 Information Resources Management Association International Conference, Toronto, Ontario Canada, May 20-23, 2001

Instance Based Learning, technical presentation to Laboratory for Knowledge Discovery in Databases (KDD) group, Kansas State University November, 2000

An Advanced Course In Application Programming and Design presented at the 2000 Information Resources Management Association International Conference, Anchorage, Alaska, USA May 21-24, 2000

Supervision Post-Audit Report, Conformity & Complexity Issues in a Lotus Notes Application Development Environment, presented at the Information Resources Management Association International Conference, Boston MA, May 1998.

Application Development Using GeneXus, presented at the Information Resources Management Association International Conference, Vancouver, B.C., May, 1997

A Brief Discussion of a Special Topics Class: Application Development Using 4GLs, presented at the 2nd Annual Consortium for Computing in Small Colleges Central Plains Regional Conference

Reengineering the Class Attendance Process Using a Successive Approximation Approach, presented at the15th Annual Office Systems Research Conference in Orlando, Florida

Rapid Application Development Using GeneXus, presented to the Natural Sciences Division, Washburn University, October, 1995

CONSULTING PRODUCTS

1. Designed and implemented multiple websites for businesses using Drupal and WordPress.
2. Designed, implemented, and host "Equipment Management System", for Capital City Oil of Topeka, KS, 2008 - present.
3. Designed and implemented a time card entry website for Schwab-Eaton, P.A using PHP/MySQL and Java, 2010-2014.
4. "OPS, LLC. – ZPlanner 1.3", Java based application released summer 2008
5. "PTMW - Purchase Order Export Utility", Java based application released spring, 2007
6. "PTMW Material Extractor Utility", Java based application released summer, 2007, 2008
7. KSHSAA – Conversion of J2EE Web application from Tomcat to Coldfusion
8. "KSHSAA – School Information", web application, released September 2005.
9. "KSHSAA – Participant web application", released September 2003, 2004.
10. "KPERS Use Case Development", Lead Consultant 2003, 2004
11. "KPERS Contribution Reporting Application", Version 2004, 2005, 2006.
12. "KSHSAA - ALL Sports Examination" web application, released September 2001,2002.
13. "KSHSAA - Regional Track & Field" web application, releases Spring 2000, and Spring 2001.
14. "UMI - Farm Property Rating", release 1.0, 1.5, Upland Mutual Insurance Company, August 1999, August 2000
15. "UMI - Farm Owner Rating", release 1.0, 1.5 , Upland Mutual Insurance Company, August 1999, August 2000
16. "UMI - Policy Transfer Utility", release 1.0, Upland Mutual Insurance Company, March 1999

17. "EIA Estimator", release 2.0, Personalized Brokerage Services, Spring 1999
18. "EIA Estimator", release 1.0, Personalized Brokerage Services, Spring 1998
19. "Supervision", release 1.0, Kansas Department of Corrections, December 1997
20. "Personalized Brokerage Services Software Proposal", Personalized Brokerage Services, December 13, 1996
21. "Power Lifting", Hosington High School, et. al., August 1996
22. "Class Attendance", release 2.0, Junction City High School, August 1996
23. "MMI - Farm Owner Rating", release 1.0, Marysville Mutual Insurance, May 1996
24. "Randomizer", release 1.0, Kansas Board of Technical Professions, Summer 1996
25. "Integration of MS Projects with TimeSheets' Manual", Columbia/HCA, April 1996
26. "KBI-DISC Interface Design Document for CCBS Supplied Software", Kansas Bureau of Investigation, August 22, 1995
27. "MRSB Statistical Plans/Manuals", Midwest Rating and Service Bureau, May 23 1995

COLLEGE TEACHING

Courses Taught Last 5 Years

Computational Intelligence, Data Mining, Database Management Systems, Software Engineering, Modeling DSS with VBA/Excel, Contemporary Programming Methods, Introduction to Computer Science, Introduction to Structured Programming

Other Courses Taught Over Career

Computer Concepts and Applications, Introduction to Structured Programming, COBOL Programming, Exploring the Internet, File Structures using COBOL, Advanced Application Programming and Design, Systems Analysis and Design, Systems Design, OOD/P Using Java, Application Development Using 4GL's, Information Modeling Using IDEF1X, Web Programming with PHP and MySQL, Systems Analysis Internship/Cooperative, The UNIX Operating System, Computer Information Systems Capstone, Senior Seminar

Significant New Course Development

Computational Intelligence, Data Mining, Modeling DSS with VBA/Excel, Advanced Application Development, Contemporary Programming Methods, Introduction to Computer Science

UNIVERSITY SERVICE

Significant Committees

Data analytics and database consultant for Washburn University's Department of Education and University Assessment, from 2010-2015.

Member of various committees including Electronic Technology, Library (both as chair and as a steering committee member), Faculty Mentor, Faculty Senate, Program Review, Faculty Search (chair), Promotion (chair), and Curriculum.

Other Relevant Service

1. Referee, Central Plains Small College Computing Conference, 1996-present
2. Program Committee Member for the IJCAI ML-5 Workshop "Wrappers for Performance Enhancement in Knowledge Discovery in Databases", Summer 2001
3. Referee, Information Resources Management Association International Conference, 1998-1999
4. Developed and delivered on-site course to Americas Workforce Technology Solutions with Dr. Donna LaLonde and Dr. Bruce Mechtly, March 2000
5. Developed and delivered on-site courses to Western Resources, January 1999, January 2000
6. Large Research Grant with Dr. Gary Forbach, Washburn University, Fall 1997
7. Curriculum Development Grant, Oracle Corporation, Fall 1997, Fall 1998
8. Curriculum Development Grant, Logic Works Corporation, 1996
9. Curriculum Development Grant, Informix Corporation, 1995
10. Curriculum Development Grant, Washburn University, 1994
11. Member of American Association for Artificial Intelligence - since 2001
12. Member of Consortium For Computing in Small Colleges - since 1994
13. Member of Information Resources Management Association - since 1997
14. Member of Sunflower Oracle User's Group - since 1994
15. Member of Institute of Electrical And Electronic Engineers - 1996-1999
16. Member of Laboratory for Knowledge Discovery and Databases (KDD) research group - since 2000