

Stephen Krebsbach

Stephen.Krebsbach@dsu.edu

- Current Position* Assistant Prof. of Computer Science
Computer Science Department
Dakota State University
- Education* Completion of all course work (*see below*) and doctoral qualifying exam in the field of Computer Science at North Dakota State University (NDSU), April 1997.
- Masters Degree in Computer Science, Moorhead State University, 1990.
- Bachelors Degree in Computer Science, Moorhead State University, 1986
- Academic Experience* Instruction of Computer Science, Dakota State University, Fall 2000 - present
Instruction of Computer Science, South Dakota State University, Fall 1988 – 2000.
Leave of Absence, Fall 1994 –Spring 1997.
Teaching Fellow, Computer Science, North Dakota University, 1996-97
Research Assistant, Computer Science, North Dakota State University, 1994-95
- Scholarly Activities* Publication of several research papers (*see below*)
Refereed several papers for various conferences since 1995
Attended several national conferences in the area of Computer Science
Presented Papers at national conferences
Paid reviewer of over a dozen book proposals
Co-Editor of the MIDAS II conference held at NDSU in 1996
- Depart/Univ. Service* **DSU**
Graduate Faculty Member
Member of the University Curriculum Committee (Fall 2002 –Present)
Computer Science Curriculum Committee
Graduate Project Advisor
- SDSU (1999-2000)**
Design Paper Advisor for graduate students (*see below*)
Novell Network Administrator
Oracle Academic Program administrator, Server(s) Administrator
Chair of the CS Graduate Written Exam Committee
Student Advisor
Member of the ‘University Technology Plan Planning Committee’ – UTPPC
Member of several departmental/university committees
Former Advisor to the student ACM chapter
- Grants* Co-Principal Investigator Approx \$400,000 over 4 years (2002-2005)
NSF - 02-006 CSEMS – CS, ENG & MATH SCHOLARSHIPS *MACSTECH* Scholars:
A Mathematics and Computer Science Technology Scholarship Program
- Courses Taught* *See below*
- Publications* *See below*
- Professional Organizations* ACM - National Member
- SIGMOD
- SIGCSE
IEEE - National Member
- Consulting* *See Below*

Publications

Stephen Krebsbach, Qiang Ding, William Jockheck, William Perrizo "Discovery of High Confidence Association Rules in Remotely Sensed Images Without Regard for Support ¹²" *submitted for publication*, summer 2001.

W. Perrizo, Z. Zhang , S. Krebsbach "Strategies for Implementing Distributed Query Algorithms over High Speed Bandwidth-on-Demand, Wide Area Networks" The Twenty-First Annual International Computer Software and Application Conference (**IEEE- COMPSAC 97**), Bethesda, Maryland, August 13-15, 1997

W. Perrizo, Z. Zhang , S. Krebsbach "A Query Processing Method for Data Warehouses which Contain Multimedia Data" Proceedings of the **ACM** Symposium on Applied Computing, San Jose, CA, February 28, 1997;

W. Perrizo, K. Jian, S. Krebsbach, Z. Zhang , K. Nygard "Method for Processing Views On Demand in Data Warehouse Environment" Proceedings of the ISCA 9th International Conference on Computer Applications in Industry and Engineering (**CAIN**) , Orlando Florida, December 11-13 1996, pages (64-69) ISBN: 1-880843-18-8

W. Perrizo, R. Vetter, A. Duggal, Z. Zhang , S. Krebsbach, "A Method for Answering Queries over Future High Speed Networks"; Proceedings of the ISCA 9th International Conference on Computer Applications in Industry and Engineering (**CAIN**) , Orlando Florida, December 11-13 1996, pages (74-77) ISBN: 1-880843-18-8

S. Krebsbach, P. Paulson "High Speed Networks and the Selection of Deadlock Detection Algorithms"; Proceedings of the **IATED/ISMM** International Conference on Intelligent Information Management Systems, Washington D.C. June 5-7 1996; pages (95-99) ISBN: 0-88986-207-9

S. Krebsbach, G. Hamer "Research Issues for Traditional (OLAP) DDBMS over Wide Bandwidth High Speed Networks", Proceedings of the Mid-Continent Information and Database Systems Conference (MIDAS-III), Fargo ND August 6-7 1996, pages (1-5)

Z. Zhang, S. Krebsbach, G. Hamer "Multicast Issues in Distributed Database over ATM" , Proceedings of the Mid-Continent Information and Database Systems Conference (MIDAS-III), Fargo ND August 6-7 1996, pages (6-13)

S. Krebsbach, G. Hamer , K. Jain "Processing Materialized Views Using Domain Vectors in a Data Warehouse Environment" Proceedings of the Mid-Continent Information and Database Systems Conference (MIDAS-III), Fargo ND August 6-7 1996, pages (60-69)

G. Hamer , S. Krebsbach "QoS Support in Future Multiservice Networks" Proceedings of The First NDSU Workshop on ATM Networks, Fargo ND August 7-9 1996, pages (55-61)

¹ Patents are pending on the bSQ and P-tree technology from which the P-cube is derived.

² This work is partially supported by NSF Grant OSR-9553368, DARPA Grant DAAH04-96-1-0329 and GSA Grant ACT#: K96130308.

Design Paper Major Advisor

---DSU Projects ---

“Template for Dynamic Webpage Development”
by Sunitha Sujja
In Progress

“Data Extraction,Scheduling,Loading,Synchroization.Balancing,Verification
and Auditing of an Insurance Claims Loss Data Repository”
by Dana Larsen
In Progress

“Data Mining Tools - Design and Implementation”
by Suman Lohani
In Progress

“Collections Representative Data Warehouse”
by Paul Wells
In Progress

“CNC Machine Shop (A web site)”
by Adrienne Meyers
In Progress

“An Environment for Associative Rule Mining and Rough Sets”
by Srikanth Mudigonda
In Progress

“An On-Line Portal for E-Trade at National American University”
by Nagebdra Somasetty
In Progress

“Embedded Software Application for SDSU Precision Agriculture Consortium”
By Ke Lui
05/01/2003

“Improving Business Intelligence at the Washington Pavilion
Using Data Warehouse Technology”
By Jodi Knutson & Shane Sattler
04/28/2003

“Cooperative Extension Service Online Registration Service”
by T. Judy Mclaughlin
12/19/2002

---SDSU Projects---

"Implementation of an Internet Testing Environment"
by Rajesh Rajaran
In Progress/turned over on transfer to DSU

"A JAVA Based Tutorial for Introductory Computer Science Students"
by Qionghua Yang
In Progress/turned over on transfer to DSU

"Database Security Issues"
by Hong Zheng
In Progress/ turned over on transfer to DSU

"Report Generator for DakStat 32"
{Internet Reporting of Sports Information using ORACLE}
by Eswari Muthukumarappan
In Progress/ turned over on transfer to DSU

"ERRA as a Web Based System"
by Lin Hu
01/2000

"A Backup Database for the SDSU Library using Oracle"
by Niraj Nanothar
07/1999

"Installation and Testing of a TPC-D Benchmark Testbed using Oracle"
by Chitra Venkatesan
In Progress

"The Implementation of an Oracle Server and Development Tools on a Novell Network"
by Zhongxian Wu
08/1999

"A Development Framework for filtering input data into an ACCESS Database"
by Mohan Nagelli
07/1999

"Web Page for Accessing the Oracle Database on the Internet"
by Haili Wang
10/1998

"Data Access Components"
(Using Visual C++ to Access Data by Data Access Objects from a Database)
by Debashis Das
08/1998

"A Web Database using Java and ODBC"
by Guohui Li
05/1998

"The Development and Application of Dynamic Web Sites"
(using VBScript, ActiveX Controls, Java, Perl and HTML to design a package of web sites)
by Su Daun
04/1998

Courses Taught

DSU

Spring 2003

CSC 303	Operating Systems	3 cr.
CIS 488	Advanced Database Issues	3 cr.
INFS 766	Advanced Database	3 cr.

Fall 2002

CSC 150	Computer Science I	3 cr.
CSC 260	Object Oriented Design - 2 sec	3 cr.
CSC 345	Programming Languages	3 cr.

Summer 2002

INFS 762	Data Warehousing & Data Mining	3 cr.
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Spring 2002

CSC 285	Data Structures	3 cr.
CSC 303	Operating Systems	3 cr.
INFS 766	Advanced Database	3 cr.

Fall 2001

CSC 345	Programming Languages	3 cr.
CIS 484	Database Management Systems	3 cr.
CSC 260	Computer Science III (object oriented) 2 sec	3 cr.

Spring 2001

CSC 303	Operating Systems	3 cr.
CIS 130	Visual Basic	3 cr.
CIS 130	Visual Basic {HONORS}	3 cr.

Fall 2000

CSC 345	Programming Languages	3 cr.
CIS 277	OS Interface and Utilities 2 Sections	3 cr.

SDSU

Spring 2000

CSC 285	Data Structures	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.
CSC 484	Database Management Systems	3 cr.

Fall 1999

CSC 456	Operating Systems	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.
CSC 285	Data Structures	3 cr.
CSC 312	FORTRAN 2 Sections	3 cr.

Summer 1999

CSC 630	Principles of Database System Design	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.

Spring 1999

CSC 484	Database Management Systems	3 cr.
CSC 285	Data Structures	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.

Fall 1998

CSC 456	Operating System	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.
CSC 285	Data Structures	3 cr.
CSC 218	Intro C/C++/Unix for Engineers (2 sec)	3 cr.

Summer 1998

CSC 630	Principles of Database System Design	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.

Spring 1998

CSC 484	Database Management Systems	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.
CSC 250	Computer Science II	3 cr.

Fall 1997

CSC 476/576	Computer Graphics	3 cr.
CSC 456	Operating Systems	3 cr.
CSC 318	Object Oriented Programming in C++	3 cr.
CSC 250	Computer Science II	3 cr.

List of All Courses Taught Since 1988

CSC 105	Introduction to Computers		
CSC 150	Computer Science I	CIS 130	Visual Basic
CSC 213	Introduction to FORTRAN	CIS 277	OS interface and Utilities
CSC 218	Intro C/C++/Unix for Engineers		
CSC 250	Computer Science II	Graduate INFS	
CSC 285	Data Structures	INFS 766	Advanced Database
CSC 312	Advanced Microcomputer Applications	INFS 762	Data Warehousing & Data Mining
CSC 318	Object Oriented Programming in C++		
CSC 260	Object Oriented Design		
CSC 456	Operating Systems		
CSC 470	Software Engineering I		
CSC 476	Computer Graphics		
CSC 472	Artificial Intelligence		
CSC/CIS 484	Database Management Systems		
Graduate CS			
CSC 630	Principles of Database Systems Design		
CSC 572	Artificial Intelligence		
CSC 576	Computer Graphics		
CSC 710	Structure of Programming Languages		

Consulting (examples)

ICONtrol Object-Oriented Management, Watertown SD. Presented company wide seminar on Object Oriented methodologies. Worked with Analysis and Design teams to help them convert to an Object Oriented approach. Consulted with Software and Business Management on applying rapid development techniques to their current projects.

Career Placement Center, South Dakota State University 1989-1994 Developed along with Dean Jim Peterson a software package called PDQ. This software was used by most students at SDSU to help them guide their career goals. Later I helped students extend PDQ into a new product called Electronic Reference & Referral Access (ERRA) 1992- 1997.

Dakota Prevention Ltd, Brooking SD. The development of a Health Care management software package. Developed in Delphi for a windows environment. Co-consultant : George Hamer

4H State Fair and Horse Show: Developed software used by the 4H to manage the student activities at the state fair from. This software was used for such things as scheduling, report generation, monetary pay outs and press releases. Co-consultant: George Hamer

Red River Net, Fargo ND. Consulted on the development and marketing of a young Internet Service company. Worked on customer support and Web publishing issues.

Doctoral Work Completed at North Dakota State University (Fall 1994 - Spring 1997)

CS713	Software Eng. I	3 cr.
CS783	Topics in Software Sys-DB	3 cr.
CS722	Compiler Construction	3 cr.
CS677	Object Oriented Sys.	3 cr.
CS766	Database System Internals	3 cr.
CS734	Expert Systems	3 cr.
CS790	Database Sem.	1 cr.
CS714	Software Eng II	3 cr.
CS708	Foundations of Programming	3 cr.
CS730	Office Information Systems	3 cr.
CS790	Database Sem.	1 cr.
CS790	Database Sem.	1 cr.

		30 cr.

Also have over 28 credits toward dissertation which requires 30 credits beyond course work.

Passed qualifying exam towards **Doctorate of Computer Science** North Dakota State University Spring 1997