

# Mohan Thapa

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CONTACT INFORMATION 1400 Twombly Rd Apt 2001  
DeKalb, IL 60115  
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EDUCATION **Northern Illinois University:** DeKalb, Illinois  
Ph.D. Candidate, Computational Mathematics, (expected graduation date: Aug 2009)  
Dissertation Topic: "A New Hybrid Method for Finding Eigenpairs of Symmetric Eigenvalue Problem in an Interval"  
M.S., Computational Mathematics, May 2005

**Goshen College:** Goshen, Indiana

B.A., Mathematics, Graduation Date: May, 1996  
*minor:* Computer Science

**Garden City Community College:** Garden City, Kansas

Associate, Science, Graduation Date: May, 1994

TEACHING EXPERIENCE • **Graduate Teaching Assistant:** 1997-1999 and 2002 - present  
**Northern Illinois University** DeKalb, IL

- Math 155, Trigonometry and Elementary Functions(F08,S99)
- Math 435, Numerical Analysis(S07)
- Math 211, Calculus for Business and Social Science(S06)
- Math 101, Core Competency in Mathematics(F05,S04)
- Math 110, College Algebra(F04,F02,S98)
- Math 210, Finite Mathematics(F03,F98)
- Math 232, Calculus III(Summer 03)
- Math 339, Engineering Mathematics(F97)

• **Instructor:** DeKalb, IL  
**Northern Illinois University**

- Math229, Calculus I (S09)
- Math 109P, Fundamentals of Mathematics II - Chance Program (S08)
- Math 108P, Algebra for College Students - Chance Program (F07,F06)
- Math 230, Calculus II (S05)
- Math 110P, College Algebra - Chance Program (S03)

• **Instructor:** Summer, 2007  
**College of Dupage** Glen Ellyn, IL, 60137

- Math 1428, College Algebra with Application

WORK EXPERIENCE • **Summer Internship:** May - August, 2006  
**Van Andel Research Institute** Grand Rapids, MI

- Image segmentation for microscopy images
- Algorithm development to find precise boundary and area of lymph nodes and vessels in lymphatic tissue used to predict cancer formation

- Extensive programming work using C and R (language and environment for statistical computing and graphics)

• **Programmer/Analyst  
Krumm and Associates**

**June 1999 February 2002,  
Oak Park, Illinois**

- Utilized programming skills in C, SAS, and Perl in a Solaris UNIX environment.
- Developed and maintained computer applications using econometric models to support on-going research and promotional activities.
- Manipulated large data sets and integrated data files from multiple sources.
- Performed data aggregation and data conversion from EBCDIC to ASCII and binary data types.
- Worked with SAS data sets to develop various samples to use in modeling.
- Generated report formatting verification and audits of data, quality control checks, and comparison and testing of program results
- Maintenance reports for all online projects using web languages including Java Script, Perl, and HTML

PUBLICATIONS

- Karabi Datta and Mohan Thapa, *Unique Full-Rank Solution of the Sylvester-Observer Equation and its Application to State Estimation in Control Design*, Accepted for publication for the book "Numerical Linear Algebra in Signals, Systems and Control", Spingler Verlag, 2009.
- Karabi Datta and Mohan Thapa, *A New Hybrid Method for Finding an Eigenpairs of a Symmetric Quadratic Eigenvalue Problem in an Interval*, Proceeding of the 9th International Conference on Mathematical and Computational Methods in Science and Engineering (MACMESE 2007), Trinidad, Nov. 5-7, 2007, pp. 126-129.

CONFERENCE  
PRESENTATION

- Findings presented at The XIXth International Workshop on Operator Theory and its Applications, *A New Hybrid Method for Finding an Eigenpairs of a Symmetric Quadratic Eigenvalue Problem in an Interval*, College of William & Mary, July 22 - July 26, 2008.

COMPUTER SKILLS

- Languages: Matlab, C, R, Perl, Pascal, Unix shell scripts,
- Database Management (Access, My SQL), COBOL (mainframe, JCL, MVS)
- Operating Systems: Unix/Linux, Windows.

AWARDS AND  
ACTIVITIES

- Certificate of Teaching Excellence Award, May 2008
  - Northern Illinois University, Department of Mathematical Sciences
- President of International Student Association, 1995-1996
  - Goshen College, Indiana
- College Outstanding Award, May 1994
  - Garden City Community College, Kansas
- Sigma Mu Mathematics Science Scholarship Award, May 1993
  - Garden City Community College, Kansas