

## CURRICULUM VITAE OF CHRIS BEMIS

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CONTACT INFORMATION	University of Minnesota, Twin Cities Department of Mathematics 426 Vincent Hall 206 Church St SE Minneapolis, MN 55455	Office: (612) 701-9355 Mobile: (612) 242-0459 bemismath@math.umn.edu www.math.umn.edu/~bemismath
OBJECTIVE	A career in the financial sector utilizing advanced mathematical techniques such as probability, optimization and data analysis in such areas as modeling, hedging and portfolio management.	
RESEARCH INTERESTS	Financial mathematics with a focus on statistical model development, numerical methods for options pricing and volatility calibration, and robust portfolio optimization.	
EDUCATION	UNIVERSITY OF MINNESOTA	
	Ph.D. Candidate, Applied Mathematics	September 2007 (expected)
	Thesis Title: <i>Modeling and Optimization of Mortgage Loan Portfolios</i>	
	Advisor: Fadil Santosa	
	M.S., Mathematics	September 2006
	B.S., Mathematics <i>magna cum laude</i>	August 2002
	THE COLORADO COLLEGE	
	Undergraduate Studies	September 1997 - January 1999
HONORS AND AWARDS	GMAC-RFC Research Scholarship J Ian Richards Math Scholarship Math Undergraduate Scholarship Ella Thorpe Math Scholarship	Fall 2005, Spring 2006, Fall 2006 Fall 2001, Spring 2002 Fall 2000, Spring 2001 Fall 2000, Spring 2001
MATHEMATICAL TRAINING	Numerical Analysis, Mathematical Modeling, Functional Analysis, Optimization, Real Analysis, Applied Statistics, Time Series Analysis, and Mathematical Finance.	
RESEARCH EXPERIENCE	GMAC-RFC	Fall 2005 - Fall 2006
	Contributed to the evaluation of a forecasting product. From this work, developed an alternative forecasting model which has appealing statistical properties. Developed a robust portfolio optimization formulation for a portfolio of defaultable assets.	
PRESENTATIONS	CONFERENCES	
	Invited to present at the International Congress on Industrial and Applied Mathematics, <i>Graduate Research Internships with Industry Minisymposium</i> , Zurich, Switzerland, July 2007: <i>Modeling and Optimization of Mortgage Loan Portfolios</i>	

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### SEMINARS

Regular presenter at the Financial Mathematics seminar at the University of Minnesota. Presentations include *Robust Portfolio Optimization for a Portfolio of Loans*, *The Derivation of the Black-Scholes PDE*, and *Numerical Methods for Solving the PIDE Arising from a Jump-Diffusion Model*.

### TEACHING EXPERIENCE

#### ANOKA RAMSEY COMMUNITY COLLEGE

##### PRIMARY INSTRUCTOR

Fall 2006 - Present

Instructor for Introductory Algebra, a two-semester sequence covering the basic fundamentals of algebraic equations. Students range in age from 18 to 50 with diverse cultural backgrounds. Develop syllabus, plan and deliver lectures, write quizzes and midterm exams, grade all course materials, and maintain a course website.

#### UNIVERSITY OF MINNESOTA

##### TUTOR

Fall 2006 - Present

Privately tutor students from the University and advanced high school students in areas ranging from advanced algebra to multivariable calculus.

##### TEACHING ASSISTANT

Fall 2002 - Spring 2005

Recitation leader for several variants of Calculus I, Calculus II, and Multivariable Calculus. Led discussions and instructed computer lab sections using Mathematica. Wrote quizzes and completed grading and administrative tasks.

### BUSINESS EXPERIENCE

#### CID SERVICES, LLC

1999 - Present

Owner and operator of window cleaning business in the Minneapolis area. Responsible for hiring and training personnel, insurance needs, accounting, payroll, advertising, customer service, and long term expansion goals. The company recently acquired high rise accounts under my direction and training, broadening our customer base substantially.

### COMPUTER SKILLS PACKAGES

Matlab, Mathematica,  $\LaTeX$ , Windows Office programs, ACT!, Peachtree Accounting, and some experience with Arc and R.

### OPERATING SYSTEMS

Unix/Linux, Windows.

### REFERENCES

Professor Fadil Santosa

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[santosa@math.umn.edu](mailto:santosa@math.umn.edu)

Professor Scot Adams

Department of Mathematics, University of Minnesota  
[adams@ima.umn.edu](mailto:adams@ima.umn.edu)

Professor Fernando Reitich

Department of Mathematics, University of Minnesota  
[reitich@math.umn.edu](mailto:reitich@math.umn.edu)

Carlos Tolmasky

Course Instructor  
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[Carlos\\_Tolmasky@cargill.umn.edu](mailto:Carlos_Tolmasky@cargill.umn.edu)