

## EDUCATION

**Doctor of Philosophy in Mathematics, University of California at San Diego**  
**Master of Arts in Mathematics, University of Buffalo**  
**Bachelor of Arts in Mathematics, University of Buffalo**  
**Bachelor of Science in Management, Babson College**

**Fellowship Recipient, 2013 - 2014**  
**Scholarship Recipient, Graduated 2013**  
**Scholarship Recipient, Graduated 2011**  
**Scholarship Recipient, Graduated 2009**

Studies in abstract and applied mathematics include Elementary Analysis (Spivak; Munkres; Rudin), Real Analysis (Folland; Rudin), Complex Analysis (Palka; Rudin), Linear Algebra (Hoffman), Abstract Algebra (Jacobson), Probability Theory/Mathematical Statistics (Adams; Casella), Differential Equations (Coddington; Hirsch; Strauss), Mathematical Computing/Python (Gutttag), Object Oriented Programming/C++ (Stroustrup).

Studies in finance and related subjects include Corporate Finance (Brealey), Investments (Bodie), Options and Futures (Hull), Real Options/New Venture Finance (Metrick), Security Valuation/Transaction Modeling (Rosenbaum; Damodaran; Koller), Financial Accounting (Weil), Microeconomics (Pindyck), Macroeconomics (Mankiw), Financial Economics (Mishkin), Excel Modeling (Walkenbach), and Event Driven Programming/VBA (Walkenbach; Mansfield).

## EXPERIENCE

**Independent Consultant, Niagara International Capital**

**Cash Flow Modeling and Borrowing Cost Analysis, 2015**

- Recruited to assist in a time sensitive advisory project; created a detailed cash flow and borrowing cost calculator for use during the negotiation of a packaged health foods deal between a client and Paula Dean Foods

**Teaching Assistant, University of California at San Diego**  
**Teaching Assistant, University of Buffalo**

**Multivariate Mathematics with MATLAB, 2013 - 2014**  
**Multivariate Mathematics with Mathematica, 2012 - 2013**

**Research Assistant, University of Buffalo**

**Computational Geology, 2010 - 2011**

- Worked with a team of applied mathematicians funded by the National Science Foundation to analytically and numerically investigated a multiphase flow problem characterized by a system of nonlinear partial differential equations
- Used C++, Mathematica, Python, and Matlab to conduct a linear stability analysis about steady state solutions of the system; worked with other junior researchers to design, prototype, implement, and test a number of problem specific mathematical algorithms and associated data structures
- Organized an effort to collaborate with scientists working on similar projects at departments across the country; created graphical and command line tools that allowed researchers with very different computational backgrounds to examine and share results; recognized as a top presenter at an international applied mathematics conference

**Summer Associate, FTI Consulting**

**Management Consulting, Summer 2010**

- Worked with a senior managing director from the Economic Consulting practice to determine the viability of a real estate venture in the premium serviced office space market; the investigation included an economic analysis of the market space, a financial analysis of existing firms, and the valuation of a particular new entrant
- Used Bloomberg to value portfolios of swaps and compare results with those of Lehman Brothers and its counterparties on September 15, 2008; analyzed historical trading volume records and the recovered trade blotters of Bernard Madoff Investment Securities, identifying anomalous transactions and assisting in the determination of the period in which fraudulent activities began
- Wrote VBA scripts to automate a number of data discovery and report generation functions; one procedure enabling the user to search through directories of Excel files for specific formulas was deployed on two data intensive and time sensitive engagements, allowing senior managing directors to include critical computational details in preliminary reports to clients

**Junior Analyst, Niagara International Capital**

**Investment Banking, 2009 - 2010**

- Worked with principals to recapitalize the broker-dealer; assembled operating forecasts, drafted financial statements, determined the amount of additional capital required under varying conditions, compiled a list of potential investors using Capital IQ, and prequalified leads by phone
- Created a financial model which was used to determine the optimal structure for a commercial real estate transaction; the model used data tables and macros to help in the identification of an agreeable rent scheme, warrant issuance, and repurchase option that met the needs of lending institutions, private equity investors, and the client
- Worked directly with the CFO and COO of a regional logistics company to find a critical cash flow problem; compiled and analyzed financial and operating data and discovered that particular trucking route and truck type configurations earned negative operating income with high probability; operating inefficiencies and undesirable short term financing arrangements led to a reorganization of the distance trucking division and the refinancing of a distribution center through GE Capital
- Conducted preliminary research efforts and due diligence for a number of pitches in the consumer goods and food service industries; actively participated in the successful pitching of an acute care center fundraising project; worked with data vendors and compliance consultants to partially automate a number of internal controls and research functions

**Summer Analyst, Lehman Brothers**

**Capital Markets, Summer 2008**