

Education

UNIVERSITY OF WASHINGTON	Bachelors of Science in Applied and Computational Mathematical Sciences (Spring 2009). Mathematical Economics emphasis. Applied Math minor.
	Bachelors of Science in Economics (Spring 2009). Departmental Honors. Math minor.
BELLEVUE COMMUNITY COLLEGE	Associates of Science (Summer 2003). Computer Science specialization.

Research Experience

PEER-TO-PEER LENDING RESEARCH	I have worked extensively with Professors Jefferson Duarte, Stephan Siegel, and Lance Young on a probability of default modeling in peer-to-peer lending markets research project. My involvement included brainstorming, examining and summarizing the initial data set, extensive programming required to gather and manipulate data. The first of a series of papers, titled <i>What's in a Picture?</i> was presented at the 2008 Pacific Northwest Finance Conference.
ECONOMICS HONORS RESEARCH	As an honors student, I will have the opportunity during the Winter and Spring quarters to complete a research project with the intent of publishing a paper at the end of the academic year. I will again be working with Professors Duarte, Siegel, and Young on an investigation of the volatility relating to cross-listed securities.
MONTE CARLO SIMULATIONS ON DISTRIBUTED SYSTEMS	For a personal project, I implemented a simple Monte Carlo simulator to price options. It was implemented using the MapReduce algorithm, and ran on a cluster of 5 computers. I plan to modify my code to do more complex Monte Carlo simulations as time permits.
MATHEMATICS RESEARCH	During the Fall '08 quarter in my discrete modeling class (Math 381), I had the opportunity to work on a research project that would benefit the community. Working with 2 peers from the class, we chose to use linear programming that would develop an optimal menu for Boy Scout troops who needed to plan for multi-day adventures. The model minimized weight and cost of food while satisfying nutritional constraints. It required extensive use of linear algebra, Matlab's optimization toolbox, and Perl/MySQL for managing data.
ECONOMETRICS RESEARCH	In my econometric theory (econ 482) class, I was able to complete a research project of constructing a time-series model for daily trading volume using intraday data. I authored several Perl scripts to manage and store the vast amounts of intraday trade and quote data. It was extremely enjoyable to work with the WRDS database (particularly the NYSE TAQ database). I received high marks on the project. The instructor, Professor Greg Ellis, has submitted a letter of recommendation on my behalf.
EUROPEAN ECONOMICS RESEARCH	In a European economics class taught by a visiting Professor from Sweden, I completed a research project on the liberalization of the Nordic power markets. The paper received nearly perfect marks (24/25). This class exposed me to the great wealth of data and knowledge available through the OECD.

Summary of Classes Taken

ECONOMICS	Micro and Macro economics to intermediate level. Advanced macroeconomics (Econ 401), Computational Finance (424), Econometric theory (482), Applied Econometric Methods (483), European Integration (306), Investment, Capital, and Finance (422), Advanced Derivatives (426)
MATHEMATICS	Differential Equations (AMath 351), Applied Linear Algebra and Numerical Analysis (AMath 352), Real Analysis (Math 327), Linear Algebra (Math 308), Statistics (Math/Stat 390), Probability I, II (394/395), Continuous modeling with differential equations (AMath 383) and Discrete modeling (Math 381), Discrete time stochastic processes (Math 491), Stochastic Calc for Option Pricing (Math 492), Linear Optimization (Math 407) and Nonlinear Optimization (Math 408.)

Technical Abilities

STATISTICAL ENVIRONMENTS	Proficient with Matlab and R. Comfortable in Stata and EViews. Some exposure to SAS. Attended the Pacific Northwest SAS Users Group on student scholarship.
PROGRAMMING LANGUAGES	Extremely proficient with Perl. Comfortable with Java and C/C++. Able to solve problems algorithmically and become proficient in any language or environment. Teaching myself Python in my spare time. Familiar with distributed computing technologies such as Hadoop/MapReduce. Familiar with Maple and Mathematica.
OTHER SOFTWARE	Proficient in editing with L ^A T _E X, well experienced with relational databases (e.g. MySQL), very proficient with Linux/Unix environments and Emacs editor.

Professional Experience

STRATEER INC, SUMMER 2008	Strateer Inc., is a small firm providing tools for home investors. My job function was to develop and prototype algorithms to predict end of day trading volume using intraday data. I also developed algorithms to detect price patterns (technical analysis).
ECONOMICS TUTOR, SPRING 2008	Tutored Intermediate Microeconomics (Econ 300) for the University of Washington's Center of Learning for Undergraduate Education. My responsibilities were to host drop-in sessions for students. Helped students with homework and in preparation for exams.
MICROSOFT CORP., NOV 2003 - NOV 2004	Worked for Microsoft as a contractor (via Volt Information Services) on Windows Sustained Engineering team as a software test engineer, level 2. Helped develop a framework for the automated testing of third-party software against upcoming service packs and security updates. Developed software to simulate user interaction with the software.
SortONCE.COM, MAY 2000 - SEPT 2003	Sortonce.com was a small startup email hosting service. Worked there part time during Jr. high and school. Initial responsibilities were network security and firewall design. With experience, responsibilities expanded to include programming for the website, including the development of a site search engine.

Awards

UNIVERSITY HONORS	Member of University Honors program. Will graduate <i>with distinction</i> , Spring 2009.
DEAN'S LIST	Listed on the University of Washington Dean's List since the Summer of 2007.
ECONOMICS - DEPARTMENTAL HONORS	Fulfilled GPA and department requirements enabling me to participate in the honors program.
SAS CONFERENCE SCHOLARSHIP	Awarded a student scholarship to attend the Pacific Northwest SAS User Group conference, Sept. 2008.

Other

SPANISH	I can communicate effectively in Spanish, and have had 2 years of formal instruction during High School.
SERVICE	Feb 2005 to Dec 2006. - Performed volunteer service in New York City and surrounding area. During a large portion of this time I worked in impoverished inner-city areas. This experience allowed me to interact with people of many cultural and socioeconomic backgrounds. It was a positive experience that provided me with unique opportunities for leadership and service.

GPA Information

Note: All GPA calculations are based on my Jr./Sr. year classes (from Jan 2007)
Overall: 3.64, Economics: 3.72, Math: 3.53.