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Education **Ohio State University**

 $Masters\ of\ Science\ in\ Computer\ Science\ \&\ Engineering$

2008 - Present

- •Concentration in Machine Learning and High Performance Computing
- •Passed Comprehensive Masters Exams Spring 2009
- •3.60 GPA

Bachelor of Science

2003-2008

- •Economics: 3.50 Major GPA •Political Science: 3.49 Major GPA
- •Significant additional coursework in Mathematics, Statistics and Computer Science

Technical Course Work Summary

Numerical Methods Parallel Computing Data Mining Artificial Intelligence Machine Learning Bayesian Analysis Analysis of Algorithms Nonparamterics Computer Graphics Operating Systems Linear Algebra Computer Architecture Multivariate Statistics Stochastic Processes Statistical Computing

Technology Skills C/C⁺⁺, MatLab/Octave, R, OpenMP, MPI, Java, C#, Linux, Unix, MS Windows, MS Excel, LATEX, SQL, Maple, SVN

Current Research •Adaptation of machine learning techniques for high performance computing platforms.

Interests

- •Advances in machine learning for time series prediction
- Application of machine learning to financial problems

Certifications Chartered Financial Analyst Program

•Passed the Level I Exam

Selected List of Projects

Kernel Methods on the GPU

Spring 2009-Present

In Progress. Development of novel algorithm adaptations for the efficient training of Support Vector Machines and Regularized Least Squares Classifiers on the GPU using CUDA.

Hierarchical Bayesian Model for Portfolio Weight Selection Winter 2009

Applied hierarchical Bayesian models to estimate posterior predictive distributions of asset returns in order to choose appropriate portfolio weights.

Comparison of Parallel Algorithms for Support Vector Machines Winter 2009 Identified performance bottlenecks, and compared the speed and scalability of parallel algorithms for solving Support Vector Machine problems.

Cluster Analysis for Portfolio Diversification

Autumn 2008

Summer 2007

Employed clustering methods to diversify a portfolio.

Work Experience Journal of Money, Credit, and Banking

Research Assistant

Summers 2004-2006

Columbus OH

•Replicated and verified the statistical analyses of published manuscripts

Ohio Department of Job and Family Services Web Application Development Intern

Columbus OH •Performed basic web maintenance

- •Created a set of classes in ASP to decrease development time of common tasks
- •Developed, as part of a team, an enterprise wide application in C# to manage a complicated workflow

Club TECH CORPS Extracurricular

2009

•Introduce elementary school students to MS Office, basic hardware, programming, and robotics