

Keith A. Johansen

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

Technical Course Work Summary

| | | |
|-------------------------|------------------------|-----------------------|
| Numerical Methods | Parallel Computing | Data Mining |
| Artificial Intelligence | Machine Learning | Theory of Computation |
| Calculus | Analysis of Algorithms | Computer Graphics |
| Operating Systems | Linear Algebra | Computer Architecture |
| Multivariate Statistics | Stochastic Processes | Statistical Computing |

Technology Skills

C/C++, OpenMP, MPI, CUDA, Java, C#, MatLab/Octave, R, EViews, Linux, Unix, MS Windows, MS Excel, L^AT_EX, SAS, SQL, Maple

Certifications

Chartered Financial Analyst Program

2007-Present

- Passed the Level I Exam in December 2007
- Sat for the Level II Exam in June 2009

Selected List of Projects

Kernel Methods on the GPU

Spring 2009

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 algorithms for solving Support Vector Machine problems.

Cluster Analysis for Portfolio Diversification

Autumn 2008

Employed clustering methods to diversify a portfolio. Also completed a related OpenGL visualization.

Work Experience

Journal of Money, Credit, and Banking

Research Assistant

Columbus OH

Summer 2007

- Replicated and verified the statistical analyses of published manuscripts

Ohio Department of Job and Family Services

Web Application Development Intern

Columbus OH

Summers 2004-2006

- Performed basic web maintenance
- Created a set of classes in ASP to decrease development time of common tasks
- Developed an enterprise wide application in C# to manage a complicated workflow

Extracurricular

Club TECH CORPS

2009

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

Franklin County Board of Elections

2008

- Assisted citizens in the voting process on election day
- Served as part of the bipartisan Ballot Transportation Team to secure the ballots