# Qiang Gao

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## Objective

Seeking a full-time position in quantitative analysis

## Education

University of Minnesota - Twin Cities, Minneapolis, MN
**Master in Financial Mathematics** (expected May 2010)
GPA: 4.00/4.00

- Mathematics: Measure Theory and Probability Theory, Stochastic Calculus, Numerical Methods (Binomial/Trinomial Tree, Finite-Difference Method, Monte Carlo and Numerical Integration)
- Finance: Fixed Income, Equity, Currency, Commodity, Exotics, The No-Arbitrage Argument, Risk-Neutral Pricing, Delta Hedging, Static Hedging, Stochastic Volatility Models, Jump-Diffusion Models, Interest Rate Models (one-factor, multi-factor, HJM and BGM)
- Computation: Implementing financial derivative models in Matlab, C# and C++, Excel-VBA
- Others: Data Mining (Classification, Association Analysis, Cluster Analysis, Anomaly Detection)

University of Minnesota - Twin Cities, Minneapolis, MN
**Master in Computational Chemistry** (July 2008)
GPA: 3.67/4.00

- Dissertation: Mechanism of subtilisin Carlsberg-catalyzed sulfinamide hydrolysis and Ras-catalyzed GTP hydrolysis by QM/MM MD simulations.

University of Waterloo, Waterloo, ON, Canada
**Master in Physical Chemistry** (September 2004)
GPA: 89/100

- Dissertation: FTIR reflection-absorption spectroscopy and ab initio calculation of acetic acid on ice.

Peking University, Beijing, China
**Bachelor in Chemistry** (August 2002)
GPA: 82/100

- Dissertation: Research of pH sensitive and chiral surfactant.

## Skills

- Excellent problem solving, analytical and research skills (five publications in top-ranked journals and two conference presentations in the field of physical and computational chemistry)
- Proficiency in C++, C#, Fortran, Matlab, Excel-VBA, Perl, MQL
- Familiar with Unix/Linux and Windows
- CFA Level 2 Candidate (June 2010)

## Research Experience

Department of Chemistry, University of Minnesota (September 2004 - August 2008)
**Research Assistant**

- Rational design of enzymatic selectivity based on the mechanism of subtilisin-catalyzed hydrolysis and of Ras-catalyzed GTP hydrolysis
- Specific reaction parameterization of semiempirical hamiltonian
- Quantum mechanical study of chemical reactions in gas phase and with implicit solvation model

Waterloo Advanced Technology Labs, University of Waterloo (September 2002 - August 2004)
**Research Assistant**

- Study of the surface chemistry of acetic acid on/in ice by FTIR-RAS and computation
- Quantum mechanical study of acetic acid monohydrates and dehydrates
- Classic molecular dynamics simulation of acetic acid adsorbed on ice