

# Guojun Zhu

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## Education

### University of Illinois at Urbana-Champaign

Urbana, IL

#### Ph.D, Theoretical Condensed Matter Physics, *May. 2011*

GPA: 3.85/4.0

- Thesis topic: Narrow Feshbach Resonance of the Ultra-Cold Fermionic Atoms;
- Developed theoretical model for 3-hyperfine-species ultra-cold Fermion gas,
- Analyzed the model with numeric methods (finite difference, Monte Carlo).

#### M.S., Finance, May 2006

GPA: 3.85/4.0

Relevant coursework: econometrics, continuous-time finance, financial engineering I/II, hedge fund, investment banking, monetary policy, corporate finance.

#### M.S., Physics, Dec. 2002

GPA: 3.97/4.0

### University of Science and Technology of China

Hefei, Anhui, China

#### B.S., Physics, May 2001

GPA: 3.8/4.0

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## Skills

**Mathematics:** modern probability theory, statistics, stochastic calculus, partial differential equation, Monte Carlo simulation, finite difference;

**Computer Languages:** Java, C, C++, Javascript, SQL, HTML, C#, Perl, ASP, R, Pascal, Fortran, VBA, Basic;

**Development Techniques:** Spring, Hibernate, Ajax, Mysql, JavaEE, JSP, Struts;

**Software Applications:** Excel, Matlab, Mathematica, L<sup>A</sup>T<sub>E</sub>X;

**Languages:** fluent in English and Chinese.

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## Sample Projects

- Networked environment for music analysis (<http://nema.lis.uiuc.edu/diy>, Spring/Ajax/Hibernate/Mysql, 20K+ lines)
  - Digital information risk analysis system (<http://sulfite.lis.uiuc.edu:8080/InformProject>, Struts/Ajax/Mysql, 10K+ lines);
  - Mini library for pricing vanilla and exotic equity options with binomial tree, Monte Carlo, finite difference methods (C++, 2K+ lines);
  - Aggregating academic papers from different online databases and providing uniform searching service (Java/JSP/Perl);
  - Multi-factor long-short risk-neutral stock selection model (R);
  - Term structure building and interest swap pricing (Excel);
  - Numerical solution of the BCS-BEC crossover gap equation (Mathematica).
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## Experience

### University of Illinois at Urbana-Champaign

Urbana, IL

#### Research Programmer

June 2008 - Present

- Developed web applications for various digital information retrieval and analysis projects;
- Designed data access modular, business logic, administrative modular and miscellaneous parts;
- Leveraged various techniques: struts, spring, hibernate, javascript framework (dojo, prototype, jQuery), core design patterns, etc.

#### Teaching Assistant

Aug. 2001 - June 2008

- Lead discussion/lab sections of physics 101/211 in several semesters;
- Was honored in *Daily Illini*'s list of “**Teachers Ranked as Excellent by Their Students**” for spring 2005 (Physics 101), Spring 2007 (Physics 211).

### Illinois Business Consulting

Chicago, IL

#### Consultant

Jan. 2006

- Worked in a two-person team at **Towers Perrin**;
- Developed and analyze tentative cognitive/functional test battery of elderly people for life insurance underwriting.

### Capital Hunter

San Diego, CA

#### Financial Analyst & Technology Specialist

June 2005 - Aug. 2005

- Analyzed everyday financial data about venture capital and private equity financing;
- Compiled regional quarterly reports on venture capital and private equity financing.