Guojun Zhu

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Experience

Federal Home Loan Mortgage Corporation (Freddie Mac) — McLean, VA
Modeling Graduate Sr — Jan. 2012 - present

- Design, develop and support systems within the financial modeling and research area.
- Developed mortgage related analytics tools
- Designed large scale distributed systems with latest frameworks: Hadoop (Map/Reduce), DataSynapse, Platform.
- Leveraged various Enterprise software technologies: JavaEE, various Databases, CI, Testing, Unix/Linux, ...

University of Illinois at Urbana-Champaign — Urbana, IL
Research Programmer — June 2008 - Dec. 2011

- 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.

Skills

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

Finance: econometrics, continuous-time finance, financial engineering, hedge fund, investment banking, monetary policy, corporate finance, mortgages;

Computer Languages: Java, C, C++, Javascript, SQL, HTML, R, Pascal, Basic;

Development Technologies: Hadoop, DataSynapse, Platform Symphony, OOP, Design Patterns, Ajax, jQuery, JavaEE, JSP, Spring, Hibernate, SQL, Struts, Maven, SVN, Mercurial;

Software Applications: Excel, Mathematica, MySql, Tomcat, Jetty, Jenkins;

Languages: fluent in English and Chinese.

Education

University of Illinois at Urbana-Champaign — Urbana, IL

Ph.D, Theoretical Condensed Matter Physics, *Dec. 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
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