

curriculum vitæ

Yang Jiao

September 13, 2009

Contact

<http://www.cs.vt.edu/~jiaoyang>

jiaoyang@cs.vt.edu

2202 Kraft Drive, Virginia Tech, Blacksburg, VA 24060-6356

Education

Fall 2008 – present, 1st year: 3.56/4.0

Doctoral student of Computer Science, Virginia Tech, Blacksburg, VA

Fall 2006 – Spring 2008, Overall: 90%

M.Eng of Computer Software and Theory, Nanjing University, Nanjing, China

Thesis: *The design and implementation of NDQFP's assembler and interpreter*

Fall 2002 – Spring 2006, Overall: 95%

B.Sc of Computer Science and Technology, Nanjing University, Nanjing, China

Thesis: *Quantum assembler and interpreter of NDQJava processing system*

Course

Taking	CS5944 Graduate Seminar II
	CS6704 Agile-based Software Engineering
Taken	CS5014 Research Methods
	CS5304 Translator Design and Construction
	CS5504 Computer Architecture
	CS5944 Graduate Seminar I
Transferred	CS4244 Internet Software Development < -- Development of Distributed Systems at Nanjing University
	CS General Elective Course in Computer Systems < -- Distributed Systems at Nanjing University
	CS General Elective Course in Programming Languages < -- Functional Programming Languages at Nanjing University

Research Project

The Green500 List, August 2009 – present

The purpose of *The Green500 List* is to provide a ranking of the most energy-efficient supercomputers in the world and serve as a complementary view to the TOP500. My contribution in this project mainly lies in designing and implementing both the background database and the front end user interface for queries.

DeXteR, January 2009 – May 2009

The *DeXteR* framework provides support for a declarative approach, which alleviates these problems by allowing the server programmer to declare how a remote method's parameters should be passed. To Using a combination of Aspect-Oriented and Generative programming techniques, *DeXteR* transforms a type-based remote parameter passing model to a declaration-based model transparently. In this project, I tried to integrate current framework with a web service model, which, however, does not turn to be a successful one.

Remote Batch Invocation, November 2008 – December 2008

Remote Batch Invocation (RBI)[1] is a new approach to distributed object computing, which allows multiple calls on remote objects to be invoked in a batch, while automatically transferring arguments and return values in bulk. In this project, I was in charge of designing and implementing the basic infrastructure for network communication and remote invocation based on the previous *Explicit Batching for Distributed Objects*.

Batched Remote Method Invocation, August 2008 – October 2008

Batched Remote Method Invocation[2] is an extension of RMI that provides programming abstractions and runtime support for invoking multiple remote methods in a batch style. I designed and implemented the remote conditionals in this project.

Course Project

CS5504 Computer Architecture, Spring 2009

In this semester, I implemented and tried to optimize a matrix multiply on the PS3 platform. During the semester, I ran the program and collected execution time for various block size in order to determine the best partition for matrix block.

CS5304 Translator Design and Construction, Fall 2008

During the whole semester, each student is responsible for designing and implementing a compiler for *Pascal Junior*, which is a subset of *Pascal* language. The whole system contains lexical analyzer, a SLR based parser for expressions, a recursive descent parser for statements, a symbol table manager and a code generator whose target machine is a stack based virtual machine called 'HYPOMAC'.

Honor and Award

2009	Department Travel Grant for CCGrid 2009, Virginia Tech
2007	Guanghua Award 2 nd Class, Nanjing University
2005	China Excellent Student Award, IBM Corporation
2004	Renmin Scholarship 1 st Class, Nanjing University
2004	Excellent Student, Nanjing University
2003	National Fellowship 2 nd Class, Chinese Government
2003	Excellent Student, Nanjing University

Research Experience

August 2009 – present

Research Assistant, Synergy Lab, Department of Computer Science, Virginia Tech

August 2008 – May 2009

Research Assistant, Software Innovations Lab, Department of Computer Science, Virginia Tech

June 2005 – June 2008

Research Assistant, Quantum Computation and Information Group, State Key Lab for Novel Software Technology, Nanjing University

Teaching Experience

Fall 2009 Teaching Assistant, Virginia Tech, *Data Structures and Algorithms*, Dr. Cao

Spring 2009 Teaching Assistant, Virginia Tech, *Internet Programming*, Dr. Tilevich

Spring 2007 Teaching Assistant, Nanjing University, *Discrete Mathematics*, Prof. Daoxu Chen and Prof. Fangmin Song
Fall 2006 Teaching Assistant, Nanjing University, *Mathematical Logic*, Prof. Fangmin Song

Extracurricular

March 2009 State of the Art in Testing and Analysis Day, Department of Computer Science at North Carolina State University
October 2007 Forum on Computing in the 21st Century, NSFC and Microsoft Research Asia
October 2007 The Fourth National Post-Graduate Mathematical Contest in Modeling, Beijing University of Aeronautics and Astronautics
August 2007 BASICS'07 Summer School on Algorithms, Complexity and Cryptography, Shanghai Jiaotong University
October 2006 UFCF'2006 University Foundation Computer courses Forum, Higher Education Press and Nanjing University
September 2005 CUMCM-2005 China Undergraduate Mathematical Contest in Modeling, Higher Education Division of the Ministry of Education, China and China Society for Industrial and Applied Mathematics

Programming

Working on *C/C++*, *Java*, *PHP*, *MySQL* and $\text{\LaTeX} 2\epsilon$
Familiar with *Haskell*, *JavaScript* and *Assembly Language*

Publications

- [1] Ali Ibrahim, Yang Jiao, Eli Tilevich, and William R. Cook. Remote Batch Invocation for Compositional Object Services. In *The 23rd European Conference on Object-Oriented Programming (ECOOP 2009)*, July 2009.
- [2] Eli Tilevich, William R. Cook, and Yang Jiao. Explicit Batching for Distributed Objects. In *The 29th IEEE International Conference on Distributed Computing Systems (ICDCS 2009)*, June 2009.
- [3] Dong Kwan Kim, Yang Jiao, and Eli Tilevich. Adapting Grid Applications with In-Vivo Enhancement. In *The 9th IEEE International Symposium on Cluster Computing and the Grid (CCGrid 2009)*, May 2009.
- [4] Yang Jiao, Nan Wu, and Fangmin Song. Quantum Assembler and Interpreter of NDQJava Processing System. *Journal of Nanjing University(in Chinese)*, 44(2):107–115, 2008.
- [5] Zhicheng Xu, Yang Jiao, and Huaihong Zhu. Windows Mobile based Medical Treatment System. *Computer Technology and development(in Chinese)*, 16(1):147–149, 2006.

Reference

Current and previous advisors of mine are very familiar with my professional qualifications and personality:

Dr. Wu-chun Feng

Associate Professor Phone: +1 (540) 231-1192
Department of Computer Science
Virginia Tech, Blacksburg, VA 24060 Email: feng@cs.vt.edu

Dr. Eli Tilevich

Assistant Professor Phone: +1 (540) 231-3475
Department of Computer Science
Virginia Tech, Blacksburg, VA 24060 Email: tilevich@cs.vt.edu

Prof. Fangmin Song

Professor Phone: +86 (25) 8359-3673
Dept. of Computer Sci. & Tech.
Nanjing Univ., 210093, China Email: fmsong@nju.edu.cn

Prof. Xining Li

Professor Phone: +1 (519) 824-4120 Ext: 56548
Dept. of Computer & Info. Sci.
Univ. of Guelph, Ontario, N1G 2W1 Email: xli@cis.uoguelph.ca