Qiuyun Wang

910 Constitution Drive, Apt 106, Durham, NC 27708
Phone : (734)604-8298 | E-mail : qw33@duke.edu

RESEARCH INTERESTS

— Energy efficient cloud computing frameworks
— Resource allocation and scheduling policies with economic theories
— Effective datacenter simulation methodologies

EDUCATION

Duke University, Durham, North Carolina USA **Aug. 2012 - Present**
Third year Ph.D. student, Computer Engineering, GPA : 3.74
Adviser : Dr. Benjamin Lee, Computer Architecture Group

Université Paris Sud (Paris XI), Orsay, France **Sep. 2009 - Jul. 2012**
— **M.S.** Information Systems and Technology, Rank : 3/43
— **Magistere** IST-EEA (*A selective 3-year M.S degree, joint program of Univ. Paris XI and Ecole Normale Supérieure (ENS) Cachan*)

Huazhong University of Science & Technology, Wuhan, China **Sep. 2006 - Jul. 2009**
B.E. Optoelectronic Information Engineering, GPA : 87.5/100

China National College Entrance Exam, Top 1% **Jun. 2006**

EXPERIENCE

Duke University, Durham, North Carolina, USA **Aug. 2012 - Present**
Research Assistant at Computer Architecture Group, Pratt School of Engineering
— Implemented task scheduling policies for datacenters using Marssx86 and Bighouse queueing simulator.
— Built a power model to characterize the efficiency of memory and interconnection technologies for different resource management strategies.
— Built a resource allocation simulation framework with Java for heterogeneous datacenters using market mechanism.

Duke University, Durham, North Carolina, USA **Aug. 2013 - Present**
Mentor for Undergraduate Research at Pratt School of Engineering
— Deployed Graph Lab application interface to process big data sets. Studied task schedulers and data placement strategies for those applications.
— Deployed a web search engine for English Wikipedia search with the open-source Apache Solr application interface.
— Optimized the interconnection topology for a network system using queueing theory with BigHouse queueing simulator.

Oracle Corporation, Redwood Shores, California, USA **Jun. 2014 - Nov. 2014**
Research Intern at RAPID Group, Oracle Labs
— Mentor : Evangelos Vlachos, Arun Raghavan
— Analyzed the performance for the Oracle database software.
— Optimized the runtime software and operator frameworks for a parallel computing system.

Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland
Research Intern at Laboratoire de Processor (LAP) **Mar. 2012 - Aug. 2012**
— Mentor : Réné Beuchat, Paolo Ienne

— Performance analysis for a Freescale P5020 development system on HPC benchmarks.

Laboratory of Signal and Systems, (CNRS), France **Jun. 2011 - Oct. 2011**
Research Assistant
— Implemented maximum a-posteriori estimator via belief propagation.
— Reconstructed an overcomplete input signal performed using oversampled filter banks from noisy quantized transmission channels.

TEACHING ASSISTANT

Compiler Construction (ECE553), Duke University **Spring, 2014**
Computer Architecture (CPS250), Duke University **Fall, 2013**

COURSE PROJECTS

Compiler Construction, Duke University **Spring, 2013**
Built a Tiger to MIPS compiler using the SML functional programming language. Implemented register allocation via graph coloring and register spilling.

Introduction to Operating System, Duke University **Fall, 2012**
Built a persistent file system with a safe management mechanism that supports concurrent reads and writes by multiple users. Implemented the caching and an efficient eviction policy.

INVITED TALKS

Datacenter Simulation Methodologies. The 47th Annual IEEE/ACM International Symposium on Micro-architecture (MICRO 2014), Cambridge, UK, Dec. 2014
NUMA-aware Task Placement Strategies for Datacenters. ECE Graduate Student Workshop, Jan. 2014, Duke University, NC, USA

TECHNICAL SKILLS

— Major Programming Languages : C/C++, SML, Java, Python, Bash
— Architecture Tools : MARSS, DRAMsim2, SimpleScalar, CACTI, BigHouse
— Other tools : Matlab, Eclipse, LaTex, Microsoft Office, Mac OS

RELEVANT COURSES

Datacenter Architecture, Computational Microeconomics, Advanced Computer Architecture, Parallel Computer Architecture, Compiler Construction, Operating Systems, High Performance Computing, Networking and QoS, Network on Chip Design

HONORS and AWARDS

Grace Hopper Celebration, GHC Twitter Scholarship Recipient, 2013
Graduate Fellowship, Duke University, Graduate School, 2012 - 2013
Outstanding Graduates, Huazhong Univ. of Sci. & Tech., 2010
Excellent Student Leader Scholarship, Huazhong Univ. of Sci. & Tech., 2007
Excellent Activist of Sports and Arts Scholarship, Huazhong Univ. of Sci. & Tech., 2007

ACTIVITIES

President of ACM-W, Duke University **Academic Year 2014-2015**
Officer of ACM-W, Duke University **Academic Year 2013-2014**
Currently serve as the president of ACM-W. Organize speaker events, tutor events for undergraduate students, and officer meetings.
Young volunteers, China **Summer 2007**
Taught mathematics and physical education at primary schools and junior high schools in underprivileged mountain areas in China. Won the honor of *"Excellent Social Practice Team"*, Huazhong University of Sci. & Tech., 2008.

LANGUAGES

Fluent English, fluent French, native Chinese