

# Curriculum Vitae

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## ZHIQIU KONG

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Homepage: <http://tiger.cs.tsinghua.edu.cn/students/kongzq/>

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### RESEARCH INTEREST

Verification and Testing, Random Stimulus Generation, SAT & SMT Solving, Analysis and Design of Algorithms, etc.

### EDUCATION

9/2007-present	<b>Tsinghua University, Computer Science &amp; Technology Department</b> MSc Candidate in Computer Science & Technology GPA: 4.0 (top 5%) Major: 4.0 Rank: 7/151	Beijing
9/2002-7/2006	<b>North China Electric Power University, Computer Science &amp; Technology Department</b> Bachelor of Computer Science & Technology	Beijing

### PUBLICATIONS

- **Zhiqiu Kong**, Jinian Bian, Yanni Zhao, Shujun Deng, Hierarchical Formal Verification Methodology based on Transactions [WS]. WRTL. 2009
- **Zhiqiu Kong**, Shujun Deng, Jinian Bian, Yanni Zhao. Even Distribution Evaluation in Random Stimulus Generation [C]. JCIS. 2008
- Shujun Deng, **Zhiqiu Kong**, Jinian Bian, Yanni Zhao. Self-Adjusting Constrained Random Stimulus Generation Using Splitting Evenness Evaluation and XOR Constraints [C]. ASP-DAC. 2009
- Yanni Zhao, Jinian Bian, Shujun Deng, **Zhiqiu Kong**. Random Random Stimulus Generation with Self-tuning [C]. CSCWD. 2009
- Yanni Zhao, Jinian Bian, Shujun Deng, **Zhiqiu Kong**, Kang Zhao. Constrained Stimulus Generation with Self-adjusting Using Tabu Search with Memory [J]. IEICE2009. Vol.E92-A, No.12,Dec. 2009.

### ACADEMIC EXPERIENCES

- 2008.10-present: Functionality Verification of Transaction Level Models
  - Proposed a hierarchical verification method,
  - Based on Bounded Model Checking, Abstract & Elaboration Methodology and SMT Solver,
  - Future work: heuristic modeling and improvements on SMT solving
- 2008.05-2008.09: Evenness Random Stimulus Generation
  - Coworked with another student in designing even-distributed random stimulus generation algorithm,
  - Proposed an evaluation method to measure evenness of stimuli,
  - Proposed an efficient stimulus generation method based on XOR constraints and SAT Solving
- 2007.10-2008.02: Circuit Generation as Benchmarks of SAT Solvers
  - Generate RTL based Circuits as benchmarks for SAT Solvers,
  - Aimed at generating hard cases in order to evaluate performance of SAT solvers
  - Based on CSP hard cases generation algorithm and fractal geometry

### SCHOLARSHIPS & AWARDS

- 2008-2009 Second-Class Kwang-Hua Scholarship
- 2009 Cadence Scholarship
- 2007-2008 Third-Class Scholarship of Tsinghua University
- 2002-2003 Third-Class Scholarship of North China Electric Power University

### EXTRACURRICULAR EXPERIENCES

- **Projects:**
  - Contributed to several open source projects: CEDET, ECB, Pcmnx, Ulipad, etc
  - ITG Engine [1] (an intelligent transactions generator dedicated in testing and verification)
  - JEDAcc [1] (Code Coverage Tool) & JEDAdc[1] (Data Coverage Tool)
  - Tweather (weather reporter for twitter)
  - No1 Chinese Food (<http://www.no1chinesefood.com/>), a website by team work),
  - Bread Talk (an instant messenger for LAN, supporting text & file transferring),

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- Countdown for Specified Events( a plugin for Counter-Strike),
  - AMX MOD X, (<http://www.amxmodx.org>, plugins programmer & translator)
  - Stupy, ( a game written in Assembly Language, team work) ,
  - Several small tools (<http://code.google.com/p/ibread/>)
- [1] coworked with JEDA Technologies

- **Student Organization:**

- Study commissioner (Undergraduate)
- Minister of Networking Dept. of Science & Technology Association (Undergraduate),
- Organizer of the League (Present)

- **Others:**

- Active in ACM Programming Contests, Topcoder, Google Code Jam, etc.
- Volunteer of WordCamp China(WCC) 08 & 09
- Volunteer of Heqingyuan Computer Training Program
- Reporting WEG & WEG Master (e-sports)
- Editor of Pcgames (Intern)

## SKILLS

- **Technical Skills:**

- Platform: Linux, MAC OS X, Windows
- Programming: Proficient in C/C++, Python & Unix Shell scripts, Experience with Assembly, Java, Pascal, HTML & PHP, etc

- **Language:**

- CET6 & English Proficiency Test (II) of Tsinghua University
- TOEFL(104), GRE(Verbal: 500 Quantitative: 800 Analytical Writing: 4.5 )

## SELECTIVE COURSES:

- Automation for Digital Systems: 90/100
- Introduction to VLSI Design: 93/100
- Algorithms and Its Complexity Theory: 99/100 (top1 in class)
- Combinatorics: 91/100
- Advanced Computer Architecture: 96/100 (top1 in class),
- Computer Network Architecture: 96/100
- Principles of Compiler: 96/100 (top1 in class)
- Advanced Mathematics: 90/100
- Pascal programming: 96/100 (top1 in class)
- Assembly language: 88/100
- Java programming: 86/100 (top1 in class)
- Probability Theory &Mathematical Statistics: 91/100