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# WANG Kun

## CURRICULUM VITAE

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### PERSONAL INFORMATION

Gender Male  
Date of Birth June 20, 1990  
Place of Birth Xianning, China  
Citizenship Chinese

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### EDUCATION

2013.9 - present Ph.D. in Computer Science, Department of Computer Science, Nanjing University  
2009.9 - 2013.6 B.S. in Computer Science, Department of Computer Science, Nanjing University  
2006.9 - 2009.6 Xianning Senior High School

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### BACHELOR THESIS

Title *On Some Non-Computable Decision Problems*  
Supervisor Prof. Dr. Song Fangmin  
Abstract We restudied the Busy Beaver problem which applied restricted Turing machines to give explicit definitions of some functions that are not computable. Based on BBP, we described four non-computable decision problems and proved the Turing equivalence between them.

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### AWARDS RECEIVED

2012 Nanjing University Elite Scholarship  
2012 Outstanding Student of Nanjing University  
2011 Nanjing University Elite Scholarship  
2011 The SHKP-Kwoks' Foundation Scholarship  
2011 Outstanding Minister of SHK Club  
2010 National Scholarship for Encouragement  
2010 Outstanding Student of Department of Computer Science

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## RESEARCH INTERESTS

Dominating	Quantum computational models, quantum algorithms
Secondary	Quantum programming language
Special	Formal methods

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## RESEARCH EXPERIENCE

Sep 2013

**Applying Linear Waveguide Array to implement Quantum Walk algorithms**, *National Natural Science Foundation of China*, Prof. Dr. Song Fangmin and Prof. Dr. Zhu Shining, Participant.

*A project on the theories and technologies of applying Linear Waveguide Array to implement Quantum algorithms based on Quantum Walks.*

Feb 2013 - Jun 2013

**Introduction to C Programming**, *Institute for International Students*, Wang Kun, Instructor.

*An introductory course on C programming language for the exchange students from France. I was the instructor for both lectures and practices.*

May 2012

**Quantum Computational Model Transformation System based on Categorical Quantum Mechanics**, *Nanjing University Undergraduate Innovation Program*, Wang Kun, Leader.

*We apply a high-level algebra - Categorical Quantum Mechanics - to formally describe two Quantum Computational models: Quantum Turing Machine and Quantum Circuit Model, then figure out the key similarities and differences between them. After that, we transform algorithms realized on one model to corresponding algorithms on another.*

Sep 2011

**Quantum Computation**, *Quantum Computation Research Group*, Prof. Dr. Song Fangmin, Participant.

*A Seminar of studying the Quantum Mechanics, Information Theory, Cryptography, and Quantum Algorithms.*

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## LANGUAGES

Chinese	<b>Proficient</b>
English	<b>Good</b>

*My native language.*

*Passed CET6 held by Ministry of Education of China.*

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## TECHNICAL SKILLS

<i>Programming Language</i>	C, C++, Java, Verilog, Markdown
<i>Self-Learning Ability</i>	Category Theory, Quantum Mechanics, Symbolic Logic

<i>Word Processing</i>	Gvim, Ctex
<i>Development Tools</i>	Visual Studio, Eclipse, QuartusII