



# Luo Yang

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Gender: Male

School & Major: Beihang University, Master of Computer Application

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## ➤ Education Background

### 2011.09 – Now: Beihang University, Computer Application, Master

1) Major in Network and Information Security, member of Beijing Key Laboratory of Network Technologies.

2) Rank in the first year: top 10% (16/165)

### 2007.09 -- 2011.06: Beihang University, Computer Science and Technology, Bachelor

1) Scored 408 in Entrance Examination for Postgraduate Studies, ranked top 2% (3/165) in Beihang University.

2) First prize of Hebei province in National Mathematical Olympiad in Senior High, recommended for admission to Beihang University.

## ➤ English Skills

Fluent in oral English, familiar with reading and writing.

Passed CET-6 with score 616/710, passed CET-4 with score 558/710.

## ➤ Papers

2013: paper “VRBAC: an Extended RBAC Model for Virtualized Environment and Its Conflict Checking Approach” accepted by journal “Research Journal of Applied Sciences, Engineering & Technology” (EI Indexed, 1st Author)

2013: paper “A Conflict-related Rules Detection Tool for Access Control Policy” accepted by journal “Journal of Theoretical and Applied Information Technology” (EI Indexed, 4th Author)

2012: paper “A Conflict Detection Method for RBAC Policies Based on Colored Petri Net” in review by journal “Journal of Chinese Computer Systems” (CSCD Indexed, 1st Author)

2012: paper “A Polymorphic Shellcode Detection Method Based on Dual-Mode Virtual Machine” in review by journal “Journal of Computer Research and Development” (EI Indexed, 1st Author)

2012: paper “A Conflict Detection Method for RBAC Policies Based on Colored Petri Net” released by conference CCSCW & CACIS 2012 (1st Author)

2011: paper “Conflict Detection Model of Access Control Policy in Collaborative Environment” published by conference ICCIS 2011 (3rd Author)

## ➤ Prizes

2012: Got first prize of excellent paper in the 9th Graduate Students Academic Forum of Beihang University.

2012: Got second prize of graduate students in Beihang University.

2012: Got prize of excellent student paper in conference CCSCW & CACIS 2012.

2011: Got first prize of new graduate students in Beihang University.

2010: Got fourth prize of Excellence in Study in Beihang University.

2010: Got third prize of Mathematics Competition in Beihang University.

2010: Got Meritorious Winner in Mathematical Contest in Modeling (MCM).

2010: Got first prize of academic competition in School of Advanced Engineering.

2007: Got first prize of new undergraduate students in Beihang University.

2006: Got first prize of Hebei province in National Mathematical Olympiad in Senior High.

## ➤ Special Skills

Steady knowledge on OS, database, TCP/IP network architecture, data structure and algorithm.

Proficient in C/C++ language, MFC and Objective-C. Familiar with J2SE, J2EE and PHP, have good manners of coding styles and experience.

Proficient in x86 Assemble language, reverse engineering and vulnerability exploitation technique, capable of cracking desktop software with general protection.

Familiar with Windows driver development, especially NDIS driver, capable of developing firewalls and forwarders for ethernet packets.

In 2009, passed the Japanese Language Proficiency Test Level 2 with score 290/400, fluent in oral Japanese, and familiar with reading and writing.

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## ➤ **Community Activities**

2012: Academic assistant of Beijing Key Laboratory of Network Technology.

2012: Make an investigation for the university-industry cooperation in Aviation Industry Corporation of China in Beijing.

2011: Organizer of the League branch.

2009: Make an investigation for social practice in Shenyang Aircraft Corporation and Liming Aero-Engine Company in Shenyang.

## ➤ **Self-assessment**

Skilled in research and programming, have interest in computer science, electronics and network technology.

Strong sense of responsibility, possessed with hardworking, self-initiative, responsible and team spirits.

Strong self-learning capability and good organizational skills.

Outgoing personality with strong curiosity, easy-going and obedient to tutor's arrangement.

Love comics, games, reading, movie, badminton, etc.

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## ➤ **Project Experience**

### **2012.12 – Now: Research on improvement of Automatic Test Pattern Generation algorithm**

**Project Description:** During the internship in School of Software in Tsinghua University, I work in the laboratory of micro-electronics and my mentor is Prof. Dong Xiang. My work focused on Atalanta, an open source ATPG tool and fault simulator for combinational circuits. We need to improve its test compression rate by furnishing it with more functionality such as influence cone analysis, selective static compression and so on.

**Responsibility:** In charge of management and improvement of the Atalanta source code, including removing the bugs in Atalanta and helping with experiments written in the Prof. Xiang's paper.

### **2012.11 – 2013.03: Research on experimental platform technique of virtualized network.**

**Project Description:** The project mainly researched on the connectivity problem between virtual cloud platforms like VMware vSphere, Xen and virtual device simulation tools like GNS3, including designing the tunnel protocol and routing algorithm for data packets between virtual network and physical network. We implement a prototype system based on principles of VPN and NAT.

**Responsibility:** Focus on the design work of protocol encapsulation and routing algorithm, the rule deployment scheme of virtualized network configuration and implementation of routing driver in Windows written by NDIS programming.

### **2012.03 – 2013.01: Research on automatic network penetration test technique.**

**Project Description:** The project mainly researched on the automatic generation and execution of penetration test scheme, during the scheme enforcement, vulnerability and penetration process can be combined and springboard technique is utilized for further penetration.

**Responsibility:** In charge of the development team which consists of three postgraduate members.

### **2012.02 – 2012.07: Research on RBAC policy conflict analytic technique based on colored petri net.**

**Project Description:** The project mainly researched on RBAC policy conflict analyzing technique in Microsoft Active Directory surroundings. We have achieved automatic extraction of users, groups, shared resources and access control lists. Conflict detection approaches respectively based on colored petri net and description logic have been proposed, detection reports can be retrieved which consist of conflict locations, types and reasons.

**Responsibility:** Responsible for the system implementation of domain information extraction and conflict detection.

### **2011.09 – 2011.12: Development of access control policy conflict detection system of collaborated environment.**

**Project Description:** The project mainly researched on the information security demand of China Aero-Polytechnology Establishment and designed a XACML policy conflict detection system based on multi-domain environment. Our system alerts to potential policy conflicts and help improve the security of cross-domain operations.

**Responsibility:** Main coder in the development team, responsible for the policy integration and sub-graph matching modules.

