Tao Liu

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CAREER PROFILE

Objective: Software Development Engineer, intern or graduate fulltime
Final year Master of Science (Research) student majoring in Computer Science and Engineering who can offer:

- Expert skills in scalable software system development demonstrated through internship and successfully developed commercial and personal projects
- Highly developed problem solving skills developed through research
- Excellent communication and teamwork skills developed through volunteer services
- Strong motivation in problem solving and design ingenious algorithms and software products

EDUCATION

Master of Science in Computer Science and Engineering (Research)   **Jul 2012 – Present**
University of New South Wales (UNSW)

- **Thesis Topic:** Security Evaluation of Message Authentication Systems
  Systematically analyzed the security of Cost-Effective Tag Design (CETD) and fixed the security weaknesses with low additional costs.
- **GPA: Distinction**

Bachelor of Engineering in Software Engineering   **Sep 2008 – Jun 2012**
Beihang University (BUAA), Top University in Project 985, China

- **Award:** Beihang University Undergraduate Scholarship, Second Prize   2011
  Each School of Beihang University nominates 5%-7% candidates annually based on academic achievement, commercial application of research, and leadership potential
- **GPA: Distinction**

EMPLOYMENT

Graduate Teaching Assistant   **Aug 2013 – Dec 2013**
UNSW

- Tutored for Course: COMP9032 Microprocessors and Interfacing
- Supervised 2 groups of 30 students in AVR assembly language programming. In total, 20 out of 30 got full marks on weekly labs and 5 out of 30 got full marks on the final design project

Summer Intern   **Nov 2012 – Feb 2013**
The Software Systems Research Group, National ICT Australia (NICTA)

- Designed and implemented a component model based desktop environment on seL4 microkernel OS
- Designed the system structure and defined interfaces between components.
- Developed device drivers for various input and output devices, such as keyboard, video card and virtual disk.
- Implemented image processing and FAT32 file system.
- Integrated all components with a supervisory client that is the user interface.

EXTRA-CURRICULAR ACTIVITY

Vice-Present, Beihang University Volunteer Association   **Oct 2009 – Oct 2010**
- **Venue Administration Volunteer** of 11th China National Competition of College Students' Extracurricular Academic and Scientific Achievement
- **Honors:** Annual Outstanding Volunteer of Beihang University   2009, 2010
  Beihang University nominates 20 candidates each year based on volunteer service time and service feedback

RELEVANT PROJECTS

Security Evaluation System, UNSW   **2013**
- Developed general purpose software in C to evaluate the security of Message Authentication (MA) systems
- Friendly APIs to facilitate connecting various source codes of MA systems and evaluation mechanisms

Audio Processing Command-Line Tool, UNSW   **2013**
- Extended the course project "audio reversing command-line app" in Java to a multiple services tool with friendly APIs for scalability

Commercial Guiding System for the Blind, VIA-Beihang Joint Lab   **2011**
- Constructed a Human Sensing Sub-System for the project on 8051 MCU using infrared probe
- High identification accuracy and high recognition speed.

A-Star Programming Contest Website, Baidu   **2010**
- Designed and implemented UI and front-end codes

SKILLS

- **Programming Languages:**
  Expert: C, Java, and Python;
  Very Competent: HTML, CSS, and Matlab;
  Understanding: Linux/Unix Shell script, JavaScript, C++, and C#
- **Working Platforms:**
  IDE: MS Visual Studio, Eclipse, and Xcode;
  Operating Systems: MS Windows, Linux/UNIX, OS X, and Virtual Machine
- **Languages:**
  English: Fluent**; Mandarin Chinese:** Native
- **Auditing Courses:** COMP9101 Design and Analysis of Algorithms, COMP9201 Operating Systems, COMP9243 Distributed Systems, COMP9171 Object-Oriented Programming, COMP9041 Software Construction

REFEREES

Referee names and contact details available upon request.