

LU SHENGLIANG

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EDUCATION

B.Eng. Computer Engineering — GPA 4.53/5.00 *Anticipated Graduation: May, 2016*
Nanyang Technological University, Singapore

EXPERIENCE

Internship (part-time), Build a GPU Computing Research Cluster *Jul 2015*

- Attached to Rapid-Rich Object Search Lab
- Used Rocks Cluster Distribution
- Configed Head-node and Compute-node network connections
- Analyzed and proposed possible solutions to user management and resources control
- Used Docker and composed Dockerfile for Cuda GPU computing
- Used LXC (cgroups) for resources provision and control
- Supervised by Mr. Yin Jianxiong

URECA Project, Study of Healthcare and Wellness Science using Wearable Sensors through Scientific Literature Approach *Sep 2014 - Jun 2015*

- Attached to Neural & Biomedical Technology Department (A*star I^2R)
- Designed text mining tools using Perl & Python for analyzing research publication abstracts
- Used Regex & Simple Data Structures
- Fortified Biomedical Text Mining by Deploying Web Crawler
- Distinguished Text Mining Situations using Biomedical and Multidisciplinary Case Studies
- Supervised by Associate Professor Wang Ping and Dr. Ge Yu

Internship, Development of Secure Thin Client for ATM *Dec 2014 - May 2015*

- Modified and installed XtratuM Hypervisor on x86 PC
- Developed Linux USB device driver
- Developed ATM client using Qt/C++ GUI
- Compiled and installed Linux kernel into XtratuM
- Used Makefile, Bash and Perl scripts

Contestant, 2013 ACM-ICPC Asia Jakarta Regional Contest *Oct 2013*

- Used Java Programming Language
- Participated representing School of Computer Engineering NTU
- Solved 3 problems (in team)

Contestant, National Olympiad in Informatics, China *Jul 2010*

- Used Pascal Programming Language

- Solved algorithm problems under Linux environment
- Won Bronze medalist

Contestant, National Olympiad in Informatics in Provinces, China

2006 - 2011

- Used Pascal Programming Language
- Solved algorithm problems under Windows environment

COURSEWORK HIGHLIGHTS

- Managed an on-line invigilation software development
 - Agile Project Development Manager
 - Programmed software server in Java
 - Multithreaded, Asynchronous Server
- Built a robotic system that can autonomously explore and traverse unknown areas (in a team of eight)
 - Chief Arduino Engineer/Hardware Leader
 - Designed exploration algorithm & obstacle detection algorithm
 - Arduino programming, Motor control, Sensor detection
- Used Verilog to implement a five-stage pipelined CPU with MIPS instruction set under simulation
 - With hazard detection & data forwarding
 - Enhanced with static branch prediction & out-of-order execution
- Implemented TLB based on understanding of Operating System concept
 - Searching & replacing algorithm
 - Nachos (C++ version) OS environment
- Designed and constructed a blood pulse wave data acquisition system
 - Signal conditioning, data acquisition
 - Used MATLAB for post processing & graphic display

LEADERSHIP ACTIVITIES

Vice President , NTU CAC, Dragon & Lion Dance Troupe	<i>Aug 2013 - May 2014</i>
Founder & Leader , ACM-ICPC Asia Jakarta Regional Contest team “FSM”	<i>Oct 2013</i>

SKILLS

Programming: C/C++, Java, Perl, Python, Shell, Assembly, Verilog, Pascal

Operating Systems: Linux full-time user, Windows

Applications: Git, Make, Emacs, Vim, L^AT_EX

Hardware Platform: Arduino, ARM Cortex development board, FPGA