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 dectection algorithm
    - Arduino programming, Motor control, Sensor detection
- Used Verilog to implement a five-stage pipelined CPU with MIPS instruction set under simulation
    - With harzard detection & data forwarding
    - Enhanced with static brunch prediction & out-of-order excecution
- 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 *Aug 2013 - May 2014*

Founder & Leader, ACM-ICPC Asia Jakarta Regional Contest team "FSM" *Oct 2013*

Skills

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

Operating Systems: Linux full-time user, Windows

Applications: Git, Make, Emacs, Vim, LaTeX

Hardware Platform: Arduino, ARM Cortex development board, FPGA