

# LU SHENGLIANG

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## EDUCATION

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

## EXPERIENCE

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

- Attached to Sense and Sense-abilities Programme (A\*star  $I^2R$ )
- Designing text mining tools using Perl & Python for analyzing thesis abstracts
- Regex & Simple Data Structures

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

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

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

- Pascal Programming Language
- Solved algorithm problems under Linux environment
- Bronze medalist

**Contestant**, National Olympiad in Informatics in Provinces, China *2006 - 2011*

- Pascal Programming Language
- Solved algorithm problems under Windows environment

## PROJECT HIGHLIGHTS

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- 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

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## LEADERSHIP ACTIVITIES

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

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## SKILLS

**Programming:** C/C++, Java, Python, Perl, Shell, Assembly, Verilog, Pascal, L<sup>A</sup>T<sub>E</sub>X, MATLAB, Haskell

**Operating Systems:** Linux full-time user, Windows

**Applications:** Emacs, Git, Eclipse, Sublime Text, Make, Xilinx, ModelSim, Vim, NetBeans

**Hardware Platform:** Arduino, ARM Cortex development board, FPGA