

# Zhiqiang Xu

Senior software architect

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Birth:1983.11 Age:37

*Work as a hacker. Hack as an artist.*

## SUMMARY

BA. With 14 years software develop experiences. Especially, 13 years embeded software develop expriences. Including 2yrs on vehicle related projects, 7.5yrs on mobile phone projects, and 3.5yrs on robot related projects.  
Excellent in C, bash, linux, rt-thread, version control and docker.  
Be familiar with software design, problem solving and debugging skills.  
Experiences on refactoring robot control system using ROS and docker technique. Use RTOS to implement STM32 based sensors.  
2yrs experiences on team management.

## PROFESSIONAL EXPERIENCE

- 2019.10 – present **Software architect**, SAIC MAXUS, Shanghai.  
Work content: Design software architect for next generation cockpit.  
Main work:
- Revision and maintenance on OTA protocol.
  - Configure continuous integration services.
  - Intelligent cockpit project based on qualcomm 8155. Work on software modules definition and architecture design.
- 2018.06 – 2019.09 **Senior System architect**, Shanghai Yunshen technologies Co., Ltd. , Shanghai.  
Work content: Develop robotic  
Main work:
- Sensor development
    - Implement rt-thread CAN driver for STM32.
    - Develop ultrasonic, anti-collision, anti-falling sensors using rt-thread and CAN bus.
    - Design firmware update method for sensors through CAN bus.
  - Robot control system
    - Use docker image to package ROS enviroment.
    - Integrate camera driver and CAN adaptor driver into docker image.
    - Design and write ROS nodes for devices and applications. And integrate them all.
    - Provide x86 system images for factory producing.
    - Mikrotik router configuration.
    - Use repo command to manage robot softwares.
    - Implement FOTA function for X86 based controller.
  - System management
    - Docker registry server.
    - LDAP, Git, gerrit, vpn and jenkins server construction and management.
    - ROS(Router Operating System)'s QoS configuration.

- 2016.07 – 2018.05 **Senior Embedded Software Engineer**, *Shanghai clever mrobot technologies Co., Ltd.*, Shanghai.  
 Work content: Develop robotic  
 Main work:
- Android driver development
    - BSP development based on Rockwell 3288 platform. Especially focus on charging system.
    - System stability optimization.
  - Robot control system
    - Redesign robot control system.
    - Use ROS(Robot Operating System) to construct control system for robotic products.
    - Port robot control system from x86 to Nvidia TX1. And integrate OpenCV support into it.
- 2010.06 – 2016.06 **Embedded Software Engineer**, *Shanghai Phicomm. Inc.*, Shanghai.  
 Work content: Develop mobile phone  
 Main work:
- Android Smartphone project
    - Develop on Marvell PXA968 platform. Sensors' and PMIC's drivers.
    - Qualcomm MSM7x27/MSM8x25/MSM8x25Q platform. PMIC module, develop environment optimization. Mainly, PMIC module development, geomagnetic debug method optimization, TP fw upgrade method and dual-way charging method based on smb358. Batch review tool for Gerrit.
    - Qualcomm MSM8x10/8x12/8x26/8x16/8994/8909 platform. PMIC module, battery characterization.
  - MStar and MTK feature phone project
    - MMI customization, add SP for customer.
    - Write auto release script.
- 2009.10 – 2010.06 **Embedded software engineer**, *Shanghai iBingo network technology Co., Ltd.*, Shanghai.  
 Work content: Develop dynamic theme and screen saver for feature phone (iShow theme system).  
 Main work:
- Develop dynamic themes for feature phone base on MTK platform.
    - 3X3 style, Ring style theme.
    - Ribbon style screensaver.
    - Dandelion screensaver which can distinction between day and light.
    - Auto release script.
  - Optimize downloading efficiency.
- 2008.11 – 2009.10 **Embedded Software Engineer**, *Shanghai Dragontec Group*, Shanghai.  
 Work content: Japanese outsourcing job.  
 Main work:
- Develop digital TV for Hitachi.
    - Implement UI and fix bug.
    - Write documents.
    - Code and test.
  - System port from vxworks to Linux. Develop environment improvement.
  - Openvg port project.
    - Port opencv support to SuperH platform for Hitachi television project.
    - Write unit test cases.
- 2008.06 – 2008.11 **Java Engineer**, *Kyrocera Mita*, Oosaka.  
 Work content: Develop non-paper solution for hospital.  
 Main work:
- Work for implementing Controller, Facade and Storage modules.
  - Write documents.
  - Code and test.
- 2007.05 – 2008.06 **Embedded Software Engineer**, *Hitachi ICS*, Hitachi.  
 Work content: Develop IVI for Cadillac CTS 08 and 09.  
 Main work:
- Implement t-engine's tasks for iPod interface and control system.
  - Parser for audio files.
  - Write documents.

2006.07 – 2007.05 **Java Software Engineer, Nanking University Dragontec, Nanking.**  
 Work content: Develop online management system for suntory's vending machines.  
 Main work:

- Write sql for DB2 and postgresql.
- Write scripts for software release and deployment.
- Write unit test cases.
- Write documents.

## EDUCATIONAL QUALIFICATIONS

2002.09 – 2006.06 **BA of Traffic engineering, Hohai University, Nanking.**

## LANGUAGE SKILLS

English	CET4	Normal
Japanese		Normal

## TECHNICAL SKILLS AND KNOWLEDGES

C	Proficient	Java	Poor
Linux/Unix	Proficient	Hardware	Ease soldering
Script	Bash	Editor	Emacs/Vim

## HOBBIES

Reading	Technology, Novell	Sports	Skate Board, F1, Marathon
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## GRANTED PANTENTS

201510477097.X	一种登录认证方法及系统
201510612722.7	一种扩展移动终端运算能力的系统
201410613796.8	一种移动终端及其虚拟光驱的实现方法
201210368281.7	一种耳机接口装置及基于所述耳机接口装置的控制方法
201510745100.1	一种密钥加密方法及系统、电子设备
201210585845.2	硬件固件独立升级系统及方法
201420615063.3	一种手机进水保护装置

## MISCELLANOUS

- twip: Add proxy support.
- ChinaDNS-C: Fix bug and port to tomato.
- Koreader: Bug fix and compilation speed optimize.
- tmk\_keyboard: Add bluetooth support for usb2usb.
- RT Thread: Fix STM32F1 bsp bugs. Write CAN driver for Stm32f4 using hal library.
- battery\_analyzer: Use spline to generate battery SOC table.
- vim\_configs: Vim configure used for co-workers.