

# Zhiqiang Xu

Senior software architect

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Birth:1983.11 Age:35

## SUMMARY

BA. With 13 years embeded software develop expriences. Including 2yrs on vehicle related projects, 5yrs on mobile phone projects, and 3yrs on robot related projects.  
Excellent in C, bash, linux, rt-thread, version control, docker.  
Be familiar with software design, problem solving and debugging skills.  
Experience on refactoring robot control system using ROS and docker technic. Using RTOS to implement STM32 based sensors.  
2yrs experience on team management.

## PROFESSIONAL EXPERIENCE

- 2019.10 – present **System architect, SAIC MAXUS, Shanghai.**  
Work content: Design software architect for next generation AVN.  
Main work:  
○ SV5101 AVN architecture.
- 2018.06 – 2019.09 **Senior System architect, Shanghai Yunshen technologies Co., Ltd. , Shanghai.**  
Work content: robot development  
Main work:  
○ Sensor development  
- implement rt-thread CAN driver for STM32.  
- Develop ultrasonic, anti-collision, anti-falling sensors. Report sensors' infomations through 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 in docker image.  
- Write ROS node to connect between drivers and applications.  
- Export clone system method for producing in factories.  
- Router configuration for robot.  
- Use repo method to manage robot softwares.  
- Implement OTA function for X86 based controller.  
○ System management  
- Docker registry server.  
- LDAP, Git, gerrit, vpn and jenkins server management.  
- ROS(Router Operating System)'s QoS configuration.
- 2016.07 – 2018.05 **Senior Embeded Software Engineer, Shanghai clever mrobot technologies Co., Ltd. , Shanghai.**  
Work content: robot development  
Main work:  
○ Android driver development  
- Based on Rockwell 3288 platform. Solving charging issues.  
- Stability optimization.  
○ Robot control system  
- Redesign robot control system using ROS.  
- Use ROS(Robot Operating System) to construct control system for robotic products.  
- Integrate OpenCV support on TX1.

- 2010.06 – 2016.06 **Embeded Software Engineer, Shanghai Phicomm. Inc., Shanghai.**  
 Work content: Mobile phone development  
 Main work:
- Android Smartphone project
    - Develop on Marvell PXA968 platform. Sensors' and PMIC's drivers. Logo file generator.
    - Qualcomm MSM7x27/MSM8x25/MSM8x25Q platform. PMIC module, develop enviroment optimize. 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 charactor-ization.
  - MStar and MTK feature phone project
    - MMI custimization, add SP for customer.
    - Write auto release script.
- 2009.10 – 2010.06 **Embeded 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 **Embeded Software Engineer, Shanghai Dragontec Group, Shanghai.**  
 Work content: Japanese outsourcing software project.  
 Main work:
- Digital TV develop project from Hitachi.
    - UI implement and bug fixment.
    - Write documentation.
    - Code and test.
  - System port from vxworks to Linux. Develop enviroment 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: Use Java to develop a non-paper work solution for hospital, which is called KMCapture Solution.  
 Main work:
- Work for implementing Controller, Facade and Storage modules.
  - Write documentation.
  - Code and test.
- 2007.05 – 2008.06 **Embeded Software Engineer, Hitachi ICS, Hitachi.**  
 Work content: Work for developing a car audio equipment for Cadillac CTS 08 and 09.  
 Main work:
- iPod interface and control system.
  - Parser for getting informations from audio file.
  - Write documentation.
- 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 database process using sql.
  - Auto release and deployment script.
  - Write unit test cases.
  - Write documentation.

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## EDUCATIONAL QUALIFICATIONS

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

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## LANGUAGE SKILLS

English CET4  
 Japanese

Normal  
 Normal

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## TECHNICAL SKILLS AND KNOWLEDGES

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

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## HOBBIES

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

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

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## MISCELLANEOUS

- twip: Add proxy support.
- ChinaDNS-C: Bug fix and add compile target for 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.