个人简历

个人信息

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教育背景

2012.9 - 至今　江南大学 物联网工程学院 控制科学与工程 学术硕士(保送)

2008.9 - 2012.7　江南大学 物联网工程学院 自动化专业 学士

外语水平

CET4:597/710, CET6: 510/710，具有良好的英语听说读写能力。

专业技能

1. 熟悉 C/C++和汇编, 理解 C++面向对象思想，有 C/C++项目开发经验;
2. 熟悉计算机网络，理解 TCP/IP，移植过协议栈，有 Pthreads+Socket 开发经验;
3. 熟悉 Linux 系统编程，熟练运用 vim, gcc, gdb, make, SCons 开发工具链，有 Linux 驱动开发经验;
4. 熟悉 Windows 系统编程，熟练运用 Visual Studio，IDA pro;
5. 熟悉 Python 脚本语言，熟悉 Python 科学计算;

项目经验

- **发电机组的故障监控系统　项目成员　2012/09-2016/7**
  1. Linux 驱动编程，通过 IO 总线获取传感器信息;
  2. 多线程编程，使用 muduo 开源网络库在后台线程中处理计算密集型任务（坐标变化，矩阵计算）;
  3. Python 科学计算，前期控制算法的设计和仿真。
- **飞思卡尔杯全国大学生智能车竞赛　项目负责人　2010/01-2012/07**
  1. 移植 uCOS 嵌入式操作系统至 ARM Cortex 平台，用 C 语言模拟面向对象编程完成硬件驱动层的设计;
  2. 使用卡尔曼滤波算法完成角度传感器信息融合，得出车模姿态最优估计;
  3. 使用 SCons+Python 完成工程自动编译工具，并根据模板修改 XML，可自动生成工程文件;
  4. 制定 SPI 通信协议，完成数据封装、CRC 校验、超时重传操作，使车模能和监控设备实时通信;
  5. 绘制车模行进过程中各传感器波形、sqlite 保存历史数据，由于分析数据;
  6. 完成 FAT 文件系统移植，用于运行时将数据保存至 SD 卡。
- **心电监测系统　项目负责人　2012/09-2013/11**
  1. 移植 lwIP 嵌入式 TCP/IP 协议栈至 ARM 平台，使用 HTTP 协议上传心电数据至服务器;
  2. 移植 CDF97 二维小波滤波算法，将其修改为一维滤波，并使用硬件乘法器加速运算。
- **智能车仿真系统　项目成员　2013/03-2014/05**
  1. 使用类 C 语言语法，完成解释器的词法设计和语法设计;
  2. 修改原系统的小车类类接口，增加速度反馈，车速设定，检测反馈等 API;

获奖情况

2009 | 国家奖学金

2010 | 江苏省电子设计竞赛 | 二等奖

2010&2011 | 全国飞思卡尔杯智能车竞赛 | 二等奖

学术成果

2012 《LPV Multi-objective Robust Control of Wind Energy Conversion System》, Chinese Control Conference. EI 检索

2013 《Active fault-tolerant LPV control of wind turbines》, 控制理论与应用. EI 检索

2013 《一种基于 Zigbee 和 GSM/GPRS 的远程心电智能监护系统》，发明专利

Yiyang Li

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EDUCATION

2012/09-2015/06, Institute of Electrical Automation, Jiangnan University Master
2008/09-2012/07, Automation, Jiangnan University Bachelor
(TOP 5%)

SKILLS

1. Familiar with C/C++;
2. Basic knowledge of Socket and Pthreads;
3. Basic knowledge of Linux and GDB;
4. Basic knowledge of assembly language, Python and TCP/IP protocol stack;

ENGLISH LEVEL

CET4: 597/710, CET6: 510/710

PROJECT EXPERIENCE

- **Research of fault tolerant technology for power generator** **Project Member** **2012/09-2016/07**

It is a postgraduate research. My job is to design the fault tolerant control method and make a hardware simulation platform. The fault tolerant control method adopts the LPV iterative algorithm. The server of the simulation platform uses the open source muduo C++ network library. The IO thread is responsible for obtaining the sensor value, and the thread pool is in charge of coordinate transform and matrix computation. The output is returned to the hardware to compose the closed-loop system.

In the past two years, I have published 4 EI, and the hardware simulation platform can be adapted to other similar research.

- **Freescale smart car competition** **Project Leader** **2010/01-2012/07**

It is a national competition. My job is to work with others to make an automatic tracking smart car and compete for speed. I am responsible for porting the RTOS to ARM processors. The finite state machine is adopted to describe the state change of smart car, and the thread is used by modules to communicate with each other. A tool written in SCons+Python is used to automatically build the project, which is similar to ‘make’. I also improve an open source smart car simulation platform by adding an interpreter to it. Users can directly combine the control algorithm with the improved simulation platform.

During the three years, I have win many prizes with my team.

- **ECG monitoring system** **Project Leader** **2012/09-2013/11**

It is a university industrial project. My job is make portable ECG monitoring terminal.

I am responsible for porting the RTOS and lwIP (a embedded TCP/IP stack) to ARM platform. The wavelet filter is adopted to reduce the interference of the noise, and hardware multiplier of the processor is fully utilized to accelerate the algorithm. The collected data is uploaded to the server by HTTP protocol.

The product is finally delivered to enterprise and obtain a patent.

AWARDS

2009 | National Scholarship

2010 | National Electronic Design Contest, 2rd Prize

2010&2011 | Freescale Smart Car Competition, 2rd Prize, 3nd Prize