Zijian Liu | Curriculum Vitae

Personal Information

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I am a junior student in XiangTan University. I love GNU/Linux and open sources. Programming in low-level operating system is the favorite thing in my daily life. I'm familiar with the mechanism about schedular , thread module and memmory management. In the past three years, I have gained plenty of experiences about the GNU/Linux platform. And I also have good habits in coding style.

Honors & Awards

Meritorious Winner of Mathematical Contest in Modeling(MCM) 2014

Internship Experience

Alibaba Yun Inc internship in 2015 (expected)

The ability in Programming

Programming Lanuage: C lanuage, Python, MATLAB, $Latex$
Familiar Domain: Linux system research, Image Processing In Computer Vision

Projects

○ **Implement a BP neural network which is based on C**

Normally, researchers just learn neural network by Matlab neural network toolbox. However, matlab software is too large to be transplated into others platform and result in slowing network training. Therefore, basing on Matlab Toolbox neural network can not achieve industrialization. The project aimed to build a BP neural network with highly portable C-language program, we used a digital neural network to predict which signal we have inputed into the system. The inputed signal is only human-readable and machine does not have a general sense. The neural network we implemented can do a good job in system identification.

○ **Color Image Dehazing with OpenCV in ARM-platform**

To figure out how the paramter influence our dehazing model, we use matlab to check which paramters could help us to get the best result. Matlab is very friendly to do research but we can not get the result in a time which will statisfy ourself. After getting the right model setting, we rewrite the algorithm in C language and base on OpenCV library. Further more, we compile this program what we rewrite in C with cross-compiler tools under x86/Linux platform. Then, we transplant it into ARM-platform.

○ **Character Devices driver for s3c6410 ARM11/Linux platform**

In this project, I tried to develop a Character Devices driver in Linux and do some research on devices driver in Linux. After finished designing and coding this driver, we could use the device driver to control the signal in GPIO of ARM-s3c6410. According to this project, I have gained the ability of programming drivers of devices for our operating system.