Liwei Cui

cui@hellolw.com · (+86) 176-080-09652 · github.com/Lw-Cui

Education Background

UESTC, Chengdu, Sicuan 2014.9 – Present

Year 3 Undergraduate Student Computer Science and Technology

HIT, Harbin, Heilongjiang 2015.9 – 2016.6

Exchange Student Computer Science and engineering

Internship

Alibaba Group Beijing 2016.7 – 2016.9

OS Group C/C++ development engineer

- Made the most contribution to analysing and solving private shared libraries dependencies for YunOS, and cooperated with many teams to implement it
- Written Javascript C++ binding to support async multithreading and compiler script.
- Packaged keyboard, bitmap API into C++ addon

Experience In Projects

Drawing Board - Alpha 2016.9 – Present

C++, Cross-platform Personal Project

A drawing board which parse Scheme to generate geometric figure.

- Closure-support Scheme interpreter
- Some Scheme libraries to support basic geometric drawing and coordinate transformation
- A editor with Scheme indentation
- Logger, Mock test, unit test, coverage test and continuous integration to support multiple compilers
- Used Github issue tracking system to track progress

Drawing Board - Beta 2015.6 – 2015.8 and 2016.6

C++, Cross-platform Personal Project

Another drawing board which consists of many features. Written by Qt and SFML framework separately.

- Supports loading dynamic-linking plugins at runtime
- Implemented line, polygon drawing and clipping algorithm
- Used Command pattern and abstract factory pattern to design it

File Transporter 2016.3 – 2016.5

C++, Corss-platform Personal Project

Reliable file compress and transport tool.

- Implemented bit stream, send/recv server, multiple compress algorithms and thread-safe queue module
- Fully modularity by using CMake module and Git submodule

Paralleling Deep Neural Network 2016.1 – 2016.3

C++, Linux Personal work

Organized UESTC team to participate Asia Student Supercomputer Challenge(ASC) and was responsible for paralleling DNN.

- Combined MKL math libraries with OpenMP to optimize DNN on MIC card
- Coordinated team members and assign tasks to them

High-accuracy π 2016.1 – 2016.2

C++, Linux Personal Project

Calculated pi π to one million hex digits in 80s

- Tested and ran in a 40-core cluster maintained by myself
- Used OpenMP, MPI and MPI with MIC to optimized it
- Unit test and performance profile

Self-defined SQL 2016.5

C++, MySQL Personal Project

Converted self-defined syntax into MySQL using recursive descent parser and regular matching searching parser separately.

Sorting performance Comparison Tool 2016.3

C++, Linux Personal Project

Sorting performance Comparison Tool which supports different dataset generator.

Other Interests

Intelligent Car 2015.9 – 2016.1

C, Embedded System Team Project

Developed intelligent car image processing and operational control embedded software in HIT.

- Robust DFS algorithm to process image
- Automatic control with negative feedback

Chinese Word Cloud 2015.6 – 2015.9

Python, Linux Personal Project

Appled Chinese Word segmenter in data collected by web scrawler to develop Chinese word cloud. Used proxy pool to accelerate scrawler and submitted process module to PyPI.

MOOC platform subsystem 2015.6 – 2015.9

Javascript/Python/HTML Team Project

Developed UESTC MOOC data uploading system, timeline and attendance system, and deployed them on cloud server.

Awards and Team Experience

Second-class People's Scholarship, UESTC 2014 – 2015
Prize of Excellence, ASC16 Committee 2016
Exchange Opportunity,Only candidate as exchange student to HIT 2015 – 2016
Group Member,UESTC Outstanding Young Engineers Group 2014 – Present
Club Member,HIT Smart Car and Innovation Club 2016