Xin Huang

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StackOverflow: http://stackoverflow.com/users/2190129/xin-huang

Technical Overview

- Worked with C++ for more than 4 years, able to reverse C++ generated binary
- Programming languages: C# (familiar w/ WinForm .NET, able to read MSIL); Scala (finished Coursera courses); Python (sometimes); x86 ASM, Lua, Ruby (long time ago)
- Experienced in parallel programming, created computation engine by using Intel's TBB
- Finished Scala & reactive programming on Coursera
- Familiar with TDD, OOAD; enjoy organizing/attending coding Dojos
- Familiar with Continous Integration tools like Jenkins, NAnt, etc

Work Experience

BGC, Schlumberger, slb.com, Software Engineer, Since 2011

Since 2014/12, Maxwell DataCore Team

I made computation faster.

- Individually replaced computation engine by re-writing using Intel's tbb::flow::graph, reduced lines of code by 90%, achieving same performance and correctness
- Optimized geophysical algorithms by using SSE2/AVX, performance improved by 20%
- Profiled computation engine and investigated performance bottleneck
- Created fast instrumentation and tracing library to collect performance data during execution for C/C++
- Mentored interns from Tsinghua HPC lab on how to improve computation running speed

2013/1 - 2014/12, Maxwell Environment Team

I made system run faster.

- Involved in CI system re-architecture and implementation, aiming a distributed "Cloud-based" CI build system
- Introduced Pester as PowerShell unit test framework, hosted reading club & coding Dojos to help colleagues learn TDD & PowerShell
- Deployed Continous Integration system, including incremental/private/feature/clean build with unit/integration test running for each build
- Hosted various coding Dojos inside company, presented in internal workshops and events

2012/4 - 2012/12, Maxwell Platform & Performance Team

- Investigated logging using Event Tracing for Windows, to collect runtime information and better logging performance
- Accelerated build performance with distributed compilation softwares
- Developed software usage log analysis tool, to automatically collect & analyze usage data, and generate Excel report
- Helped team as Scrum Master; hosted coding Dojos every week to improve TDD, OOAD skills, and to learn other programming languages

2011/8 - 2012/3, Maxwell DataPrep Team

- Developed & maintained Maxwell framework data processing component
- Developed Re-Compute Robot, to do both parallel & sequential computation base on same data set, for data validation & performance benchmark

CYOU .Inc, cyou.com, Game Developer, 2010 - 2011

- Feature development of item, family, ladder and PVP system
- Improved font rending performance
- Implemented C# delegate style event system, supporting asynchronized method invocation
- Created Lua script template for generic item operation
- Developed game robot for pressure test, extensible via Lua

Open Source Projects

- 2015 - OpenVML: Open-sourced version of Vector Math Library, focused on high performance. Collaboration project.
  https://github.com/xianyi/OpenVML
- 2013 - LifeGame: A demo in SLB C++ workshop on verterization. Conway's Game of Life implemented in various ways: raw loop, OpenMP, Intel IPP, Intel TBB, GLSL Shader
  https://github.com/xinhuang/HelloCinder/tree/master/LifeGame

Publications and Presentations

- Co-organizer of Global Day of CodeRetreat Beijing 2013
- Coding Dojo project for state/strategy pattern, used in internal sessions
  https://github.com/xinhuang/StatePattern

Education

- 2010 - B.S. in Computer Science, Beijing University of Posts & Telecommunications

Last update at Oct. 12, 2015. Latest resume can be found here|pdf.