

Nan Xiao

Basic information

- Gender: Male
- Nationality: Chinese
- Location: Singapore
- Email: nan@chinadtrace.org

Personal website

- <http://nanxiao.me/en>

Education

- Master's degree, Computer Science at University of Science and Technology Beijing (September, 2005 ~ January, 2008)
- Bachelor's degree, Computer Science at University of Science and Technology Beijing (September, 2001 ~ June, 2005)

Summary

I am a Chinese system software / performance engineer who living in Singapore now (not PR/citizen, just working visa), and have more than 10 years experience in software architecture & development: from embedded system to server box. I am especially enthusiastic in technologies related to computer infrastructure, such as Operating System, concurrent programming, debugging tricks, performance tuning, etc. On top of that, I also like to write technical blog posts in my spare time.

Skills

- Programming languages: C, C++, Go, Rust, Python, Bash, x86 & ARM assembly language.
- Concurrency programming: OpenMP / Nvidia CUDA / POSIX Threads.
- Socket programming.
- Linux / FreeBSD kernel programming.
- Operating systems: Linux / FreeBSD / OpenBSD/ Solaris.
- Databases: Redis / MySQL / Oracle.
- Virtualization/Container: Xen / KVM / Docker.
- Tracing technologies: eBPF / perf / SystemTap / DTrace.

Side-projects

C

- [lscpu](#): The "lscpu" command for BSDs.

- [umalloc](#): A tiny Unix dynamic memory allocator library.
- [TCP server framework](#): A TCP server framework.
- [IO multiplex server](#): An IO multiplex server.

C++

- [log](#): A simple log function implemented in C++.
- [lscuda](#): A small tool which lists NVIDIA CUDA information.

Rust

- [stream](#): The [stream](#) implemented in Rust.
- [RustTCPFramework](#): A simple TCP framework implemented in Rust.

Go

- [Gouname](#): The "uname" command implemented in Go.

Tutorials

- [Go 101 hacks](#): A rudimentary Go programming language tutorial.
- [FreeBSD 101 hacks](#): A collection of FreeBSD hacks.
- [GNU/Linux /proc/pid introduction](#): A Chinese tutorial which introduces /proc/pid directory in GNU/Linux.
- [100 gdb tips](#) (Co-work with guys from [hellogcc](#)): A Chinese tutorial which shares gdb tricks and tips.

Others

- [Chinadtrace.org](#): A Chinese website which introduces the skills and knowledge of DTrace.

Working experience

Research Engineer at [DSI](#) (December, 2016 ~ Present)

- Research and develop cryptography technology.

System Software Engineer at [HPE](#) (January, 2015 ~ September, 2016)

- Working in HPE Open Source team, including contributing to Linux kernel, tuning HPE server performance, etc.

Software Engineer at [Aicent \(Acquired by Syniverse now\)](#) (September, 2010 ~ January, 2015)

- Maintain and development international SS7 SMS gateway.

Software Engineer at [MediaTek](#) (December, 2007 ~ September, 2010)

- Maintain and develop mobile applications in MTK native platform, such as eBook, email, etc.

Software Engineer Internship at IVT (November 2006 ~ April 2007)

- Develop Bluetooth applications in embedded Linux.

Software Engineer Internship at Dayo (May 2006 ~ October 2006)

- Develop Dual-SIM software protocol stack.