

Jinzheng Zhang | Curriculum Vitae

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Objective: Full Stack Engineer

Education

Hefei University of Technology

Bachelor of Engineering,

Hefei

2010 – 2014

Experience

UPYUN(A CDN and storage service provider in China).....

Systems Engineer(System architecture team)

Hangzhou

7/2014 – Present

- As a core developer of our team, I served many roles:
 - Involved in the design, development and optimization of the CDN infrastructure.
 - In charge of the release of important CDN projects, including merging code branches, modifying configuration templates, packaging source code and binary, writing the check scripts and monitoring the process of publish with the DevOps team.
 - As a mentor of fresh CDN developer.
- Highlights of my work on CDN(mainly on top of ngx_lua):
 - CDN infrastructure development(refactoring, building Nginx and ngx_lua modules and adding core functionalities).
 - CDN unittest framework: based on my ztest, more flexible and clear.
 - CDN rewrite DSL: support functions and variables; customers can use it to control CDN to perform URL rewrite, access control and so on.
 - CDN Lua code dynamic loading, access control, CC attack mitigation, throttle control.
 - Built various useful tools using Python, Go.
- In addition to the work on CDN, I'm also the creator and maintainer of those projects:
 - CDN metadata query platform: based on ngx_lua, jQuery, Redis, Bootstrap.
 - CDN log collection and analysis platform: based on HAProxy, Heka, Kafka, Elasticsearch, Kibana, NGINX, automated by using Ansible; The Elasticsearch cluster consists of 25 nodes, index 10^{10} logs per day.

Projects

ztest

OpenSource

<https://github.com/tianchaijz/ztest>

A lexer for the unittest DSL, inspired by Test::Nginx, written in Python.

mt-http-server-wfm

OpenSource

<https://github.com/tianchaijz/mt-http-server-wfm>

A Python multithreading HTTP server extended from the standard SimpleHTTPServer module with which you can upload and delete files and it can calculate file's sha1sum for verifying.

polymer

OpenSource

<https://github.com/tianchaijz/polymer>

A TCP server that receives logs in JSON format and write them to the file based on the LRU algorithm, written in Go.

inspect-lua-vm-stack

OpenSource

<https://github.com/tianchaijz/inspect-lua-vm-stack>

A library for inspecting the value on the Lua VM stack, for learning the stack manipulation of Lua VM and getting a deeper understanding of Lua.

ocaml-json

OpenSource

<https://github.com/tianchaijz/ocaml-json>

A simple JSON parser for learning OCaml.

Skills

- Software Development with Lua/C/Python/Go/Java/OCaml
- Build high performance web application server based on ngx_lua
- Scripting and automating with Python
- Manage and scale cloud infrastructure
- Build the platform for massive log collection and analysis

Technologies

Languages: Lua, C, Python, Go, Bash, Java, OCaml

OS: Linux, OS X

DevOps: Ansible, Fabric, Supervisor

Data Analysis: Heka, Elasticsearch, Kibana

Network Protocol: TCP/IP, HTTP

English: Intermediate in spoken and written

Frameworks: OpenResty

Version Control: Git

Load Balancer: HAProxy, NGINX

Databases: MySQL, Redis

Debug: GDB, TCPDUMP, SystemTap, FlameGraph

Edition: L^AT_EX