

Difan Zhang

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System Administration Skills

Platforms **UNIX/Linux**, *Solaris, BSD Family, Debian based Linux, Red Hat based Linux.*

With knowledge of OS internals and online debugging. Over 5 years of experience of managing UNIX/Linux in a production environment, 2 years as general system administrator.

Hardware **Server, Router, Switch**, *x86/Sun servers, Cisco Routers/Switches/Firewalls, H3C Routers/Switches.*

Hardware installation, maintenance, diagnostics and troubleshooting

Development **Python, PHP, C, JavaScript, (X)HTML, CSS, L^AT_EX, SQL, Visual Basic.**

Experienced in Python. Open Source Projects in code.difan.org.cn.

Core Competencies

Experience **UNIX, Linux and Open Source.**

With more than 10 years of experience with Linux/UNIX, 5 years of them in a enterprise network supporting over 40k users, expertise in monitoring and maintaining Linux/UNIX server in an *automated* way. Able to write automation scripts and active in open source community.

Development **Scripting, Programming and Automation.**

Script with Python, PHP and program in C. Able to develop automation scripts with limited resources and time. Can develop Web Applications with help of various frameworks including Django and Pylons. Write standard-compliant CSS/HTML/JavaScript.

Multi-**Chinese and English.**

Lingual Native Mandarin speaker with fluent spoken/written English.

Education

May 2012 **M.Sc., Applied Info. Tech.**, *Towson University, Towson, MD, 3.67/4.0.*

May 2011 **B.Sc., Chemistry**, *Qingdao University, Qingdao, China, 4.0/4.0.*

Professional Experience

May 2011 – **Graduate Assistant**, *Towson University, Towson, MD.*

present Research on network security.

Selected Projects:

- Distributed Network Sensor Based Intrusion Detection Framework in Enterprise Networks
- Distributed Network Sensor Based Defense Framework

Jan 2009 – **System Administrator**, *Qingdao University*, Qingdao, China.

Jan 2011 Responsibilities:

- Support daily IT network operations for Qingdao University with over 40,000 users.
- Configure **VLAN switching and OSPF routing** for core network.
- Migrate the legacy system to an *automated, monitored* system based on Linux and Solaris.
- Monitor and maintained mission-critical servers and network devices in a diverse IT environment.

Achievements:

- Greatly enhanced stability of campus network.
- Improved usability of Qingdao University homepage.
- Developed numerous automation, management and monitoring tools.
- Tutored 3 interns for network information center.

Selected Voluntary Professional Experience

Jan 2010 – **System Engineer**, *ifanr.com*, Towson, MD/Qingdao China.

present Responsibilities:

- Support the website with over 35k PV/day.
- Optimize the PHP scripts and MySQL queries.
- Performance tuning on Debian Linux.
- Build customized RESTful APIs.

April 2011 **Website Developer**, *The Towerlight*, Towson, MD.

Achievements:

- Migrate the PHP running model.
- Automated backup.
- Performance tuning on MySQL.

Publication

A Distributed Network-Sensor Based Intrusion Detection Framework in Enterprise Networks.

Difan Zhang, Wei Yu, and Rommie Hardy, IEEE MILCOM 2011

Selected Open Source Projects

TWIP, *Committer*.

Twip is a PHP based Twitter API proxy, popular among Chinese users.

Aluminum Oil, *Author*.

Aluminum Oil is a computer aided chromatography analysis software. See <http://sourceforge.net/projects/aluminum-oil/>.

Aluminum Blog System, *Author*.

A blog system wrote in Python. See <http://code.difan.org.cn/aluminum-blog>.

Network Devices With Experience

- Cisco 7609/6509/4506/3750/2950 router/switch
- Cisco ASA/FWSM firewall
- H3C SR8808/S7500/S5500/E126 router/switch
- Huawei Quidway ME60