

Oleksandr Rybalko

Main info

Current Position: Senior Software Developer.
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EDUCATION

Bachelor of computer science,
Institute Of Computer Technology
University "Ukraine" 2012

EDUCATION

Specialist(Master) of computer science,
State Economics and Technology
University of Transport 2013

Summary of Qualifications

I'm a DevOps with experience in programming more than 22 years and systems/network administration 18 yers. I am an active FreeBSD src committer. I have large experience in many computer technologies, languages and tools. As member of ISP network team I worked with big set of different hardware. It was Ethernet switches from several vendors, including Cisco Catalyst switches, Cisco and FreeBSD based PC routers and access servers and many FreeBSD servers. I use ARM, MIPS and i386 assembler for LL debugging and writing low level functions. Also have good background in Perl, Lua and Shell scripts development. Plus I worked with Web markups/languages - HTML/XML/CSS/JavaScript. Have good skills in SQL (PostgreSQL, GreenPlum, MySQL) including PostgreSQL stored procedures. I have good knowledge in OOP principles and use it with Perl, Lua, C++ and even in C, as C permits. This knowledge allowed me successfully develop new applications and fix/update part of existing systems written in almost any programming language. I have strong analytical skills, able to solve complex problems. Can work alone or can lead team of developers.

EXPERIENCE

Senior Software Developer Network Lifecycle Automation Oct 2020 - present time
Solutions Company

Provider level 5G service control and data processing software:
Writing DPDK support.
Adding support of new 5G service protocols.

Senior Software Developer HPC Storage Solutions Company Oct 2019 - Oct 2020

Network Attached Storage for HPC:
SPDK thread scheduler, thread statistics Distributed storage system:
FS abstraction library, driver for NFS server and JS(node) scripts to control NFS server.
VFS module of that FS for SMB(samba) server.

Senior DevOps Engineer SW development company Nov 2018 - Oct 2019

Vmware vSphere ESXi/vCenter servers administration: Access rights, linked-clones, virtual servers auto-setup, etc.
Monitoring: Grafana, Prometheus, Zabbix, etc.
LDAP + SAML/OAuth IdP authentication system (join Gitlab, vCenter, Jira, Seafiler(file-shiring), xWiki, Teamcity under single domain. Most with SSO.)
docker administration: docker swarm, rancher.
DB administration: GreenPlum cluster, Percona XtraDB cluster, redis cluster. Setup, access, update, etc.

Software Developer SW development company Mar 2016 - Nov 2018

Distributed storage system: FS abstraction library, driver for NFS server and JS(node) scripts to control NFS server.

Developer M2M company June 2015 - December 2016

Company request HW design in China and prepare own Firmware for cheapest routers for M2M (Machine 2 Machine) purpose. Gateways for security and control.

Adaptation of ZRouter.org project. Writing new tools for it: GPRS modem control, SMS handling, etc. MIPS SoCs Atheros and Ralink (C / Shell / Lua).

Developer/Consultant D-Link Ukraine March 2007 - December 2015
Kyiv

D-Link Ukraine - is the Ukraine office of the D-Link company, largest manufacturer of network equipment. <http://D-Link.ua/> (Lang: UA/RU)

Modification and writing software for embedded devices (C / C + + / Shell / Perl / Lua). Development of FreeBSD based firmware for routers/APs (DIR-320, DIR-620, DAP-1350, etc.). Training talks about usage and configuration of D-Link Ethernet Switches L2/L3.

Head of Network Technologies Department Farlep ISP November 2004 - March 2007
Nikolaev

Farlep ISP Nikolaev - is a regional department of one of biggest ISP in Ukraine. Now its name is Vega Telecom. Nikolaev department was have for about 10k customers those time I work there.
<http://www.mk.farlep.net/> (Lang: RU)
Now: Vega Telecom <https://vega.ua/>

Responsible for the site to work multiservice network. General system administration, routing, security policy. Writing and support of billing system.
Planning and Accounting.
Team leadership.

Head of network system administration sector Farlep ISP Nikolaev January 2003 - October 2004

Responsible for the site to work multiservice network. System administration, routing, security policy.
Writing and support of billing system.

Support service Farlep ISP Nikolaev October 2000 - October 2003

Users support and consultations. Monitor the status of servers/services.

PROJECTS

distributed network storage

Name: proprietary distributed network storage

Storage cluster with access to data over NFS and Amazon S3.

Writing filesystem abstraction library.

Writing filesystem module for NFS server/REST API code to control NFS server/docker volume handler.

Writing filesystem module for SMB(samba) server.

Langs: C, JavaScript, Go, Shell, GNU make

Tools & Technologies: docker, kubernetes, nfs-ganesha, git, NFS, S3, HTTP REST, jemalloc, ASAN

data collector proxy

Name: proprietary data collector proxy infrastructure

Cluster of proxy servers collecting data to database cluster.

Langs: Perl, Shell, make

Tools & Technologies: gitlab, git, Rundeck, docker, Pivotal GreenPlum, Percona XtraDB, Redis, Apache Kafka, Vsphere vCenter/ESXi

FreeBSD Port to Ralink MIPS SoC

Name: FreeBSD Port to Ralink RT3050F, RT3052F MIPS SoC

New drivers:

- DWC OTG USB driver, and its binding for RT305xF
- Interrupt controller
- System control device
- Serial device and its binding
- Ethernet MAC driver
- Ethernet switch driver and userland tool ("switchctl" in ZRouter.org HG tree)
- Pseudo driver, to copy u-boots nvram into kenv
- GEOM module for compressed FS using LZMA(and GZip)
- GEOM module to partitioning Flash or other storage by kernel hints info

Langs: C, MIPS assembler, Perl

FreeBSD Port to Freescale i.MX515

Name: FreeBSD Port to Freescale i.MX515 ARM SoC

New drivers:

- Interrupt controller

- I2C driver
- HW Watchdog driver
- Basic video output support (initialized by u-boot)
- Serial device binding
- USB EHCI controller binding
- IDE ATA driver

Langs: C, Perl, Shell, ARM assembler

FreeBSD Newcons

FreeBSD new virtual terminal (a.k.a. Newcons project) implementation
Set of new drivers to support FrameBuffer for Broadcom BCM2835(Raspberry-Pi),
Freescale i.MX515, DRI2 framebuffer(Intel, ATI cards)
Langs: C, Shell

ZRouter.org

Name: ZRouter.org
Descriptions: FreeBSD based firmware for SOHO class router.
URL: <http://zrouter.org/>
URL: <http://zrouter.org/hg/>
Langs: C, C++, Perl, LUA, Shell

ISP Billing

Name: ISP Billing software
Langs: Perl, Shell, SQL (PostgreSQL, MySQL)

Access servers monitoring

Name: Access servers monitoring system
Langs: Perl, SQL (PostgreSQL)
Technologies: SNMP

Mail servers control and synchronization system

Name: Mail servers control and synchronization system
Langs: C, Perl, Shell, SQL (PostgreSQL)

COMPUTER SKILLS

- designing, constructing and administering IP networks within the regional corporate and local networks and provide Internet access, Frame-Relay networks.
- design/maintenance of billing systems.
- administration of network server applications (Apache, nginx, haproxy, bind, powerdns, ProFTPD, flowd, cflowd, sendmail, popd, qpopper, squid, oops, snmpd, etc.)
- database PostgreSQL (21 years), MySQL. (19 years), Oracle (5 months)
- Administration skills in Unix-like operating systems (FreeBSD, Linux distro. CentOS/Ubuntu).
- hardware router (D-Link, Cisco, NSG)
- Ethernet switches (D-Link, Cisco Catalyst, 3COM, Allied Telesyn)
- hardware access servers (Lucent MAX, Cisco AS5300, PC-based powered by FreeBSD)
- the DSLAM (D-Link, Asotel, ZTE, ZyXEL)
- programming in C (22 years), Perl (21 years), Lua (9 years), Asm(i386, ARM, MIPS) (14 years), SQL (21 years), JavaScript (21 years)
- programming for embedded platforms(ARM/MIPS) C/C++ (14 years)
- network (TCP/IP) application programming (C, Lua, Perl) (19 years)
- containerization with docker and Kubernetes (5 years)
- virtualization (bhyve, VmWare ESXi/vCenter, VirtualBox) (5 years)
- Web related (HTML/CSS/JS + AJAX/REST, etc.)
- learned Verilog (wrote simple CPU, no practice yet)

EXPERIENCE

Work experience in IT/Programming - 22 years.

Tag Cloud

#Ansible #ARM #ASAN #ATM #Billing #C #C++ #CentOS #CSS #DistributedStorage #docker #dockerSwaa
#Drivers #Embedded #ESXi #Ethernet #EthernetSwitch #FrameRelay #FreeBSD #HTML #Hardware
#IoT #jail #JavaScript #jemalloc #Kafka #Kernel #Kubernetes #K8s #Lua #MIPS #Networks
#NFS #nodejs #OSPF #Perl #PostgreSQL #QPID #Rancher #RISC #Routing #Shell #TeX #vCenter
#VLAN #WebUI #WLAN #p5-Catalyst #Ubuntu #xDSL

September 21, 2021