

## NAME

Maciej Grochowski - Software Engineer

## SYNOPSIS

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Maciej [--system_engineer] [--kernel_engineer] [--performance_hacker]
[--open_source_enthusiast] [--other]
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## DESCRIPTION

Software Engineer with a wide range of skills from low-level software and hardware related topics, through system and networking administration to application stacks and algorithms. My main areas of interests (*read **key strengths***) are: Performance Analysis and Tuning (systems, application), Networking and Protocols File Systems, and Distributed Systems.

## OPTIONS

### **--system\_engineer**

System engineering is for me always about good understanding of all software components and how they interact with each other. I am proficient with different tools for narrowing down and analyzing the issues, my favorite problems are performance related: perf, eBPF, strace, dtrace, gdb, tcpdump are my (old) friends

Some examples of stacks and problem that I was working on:

- \* Analysis and fixing performance bottleneck for enterprise storage system caused by non-optimal operations for large IO sizes
- \* NGINX stack performance optimizations (Nginx stack + intel driver)
- \* SSL Crypto stack on FreeBSD 8.4, fixing performance 20% perf drop comparing to Linux that we fixed by provide custom function instead of standard OS libc and also by using advantages of IA.

### **--kernel\_hacker**

Operating systems were always my passion, during my work I had pleasure to write different drivers, and analyzing code for:

- \* Linux Kernel, Xen hypervisor, FreeBSD and Solaris

Areas from Linux kernel that I have most familiar with are: memory management, LKCF, Networking and Filesystems.

Some knowledge about bootloaders on different arch than x86 - ARM. I contributed few features and bug fixes to drivers/crypto/qat/\* and legacy QAT driver that can be found on intel website (01.org). I was also working with igbx, xen-pciback and DPDK framework. Working in FS team with distributed filesystems.

## OTHER

### **PROGRAMMING LANGUAGES | FRAMEWORKS**

C, Assembly(x86), Python, C++, GO, Ruby

### **AWARDS AND OTHER ACTIVITIES**

- \* EuroBSDCon 2018: "Live-patching FreeBSD kernel".
- \* Xen Summit 2017 talk: "How to abstract hardware accelerator"
- \* Texas Instruments Analog Design Contest 2012: **2-st in Europe!**

## WORK HISTORY

### \* Veritas Technology [08.2017 - till today| Ireland Dublin]

- Analysis for different type of issues for appliance storage servers and customers enterprise environments
- Maintenance of Veritas Filesystem, and Clustered FS
- Performance analysis and tuning of different storage workloads

### \* Intel [02.2016 - 08.2017 | Ireland]

- Development of packet processing software INFOSEC and SSL
- Debugging applications connected to Intel Network Drivers
- Driver Development for Linux (QAT and LKCF) FreeBSD + Xen
- Writing and tune Drivers/Libs for pci-dev's and integration layer

### \* Codilime: NTTi3 and Juniper Networks team [03.2015 - 02.2016]

- Writing DPDK based packet processor software for SDN devices
- Integration Fortigate and Palo Alto Networks Firewalls as Virtual appliance to packet processing chain
- Debugging different packet flows: MPLS over GRE/UDP, VXLAN

### \* Independent Consultant [10.2012 - 03.2015 | Warsaw]

- Codilime[SDN team], uBirds[Startup], MarketPlanet, Cyfrowy Polsat

### \* Metrum Cryoflex [05.2009 - 03.2012 | Warsaw]

- Embedded Systems, Drivers, RT Linux, small uC: ARM, MIPS, AVR...

## EDUCATION

### \* ポーランド日本情報工科大学 (PL-JP IT University): Master Degree

Faculty: Distributed system and network programming

### \* Warsaw University of technology: Engineer Degree

Faculty: Electronic Engineering

## SEE ALSO

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## COPYRIGHT

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