

Top Skills

C

x86 Assembly

Linux

Cross-site Thinking Engineer

Summary

I am open for new challenges and technologies. Being assertive, creative and reliable ease solving unexpected problems, but the keys to success are scrupulousness and prospective thinking - I apply both to everything I am involved in.

What I've dealt with over years, with various degrees of exposure and gained experience:

- Toolchains: GCC, Clang, GHS
- Programming lang.: C, C++, Assembler (x86), POSIX sh, BASH, awk, sed, Lua, Python
- Programming theory: imperative p., procedural p., structured p., object-oriented p., event-driven p., design patterns, concurrent computing
- Programming libraries: C++ - Boost, Qt, STL; C - glibc, musl libc, SQLite
- Programming-aid tools: Qt Creator, Eclipse, GDB, ASan, curl, valgrind
- Version control systems: Git, Mercurial (hg), Subversion (svn)
- Databases: DBMS - PostgreSQL, MySQL/MariaDB, Oracle, standards - SQL:1999
- Internet technologies: protocols - IPv4, TCP, UDP, HTTP, RTP, SIP; standards - AJAX, CSS, HTML, JSON(P)
- Servers: NGINX, FreeSWITCH, Apache, GnuGk
- Designing: software, databases, websites, graphics, music
- Development methods: adaptive (agile, lightweight) - scrum
- Graphics & DTP: Photoshop, LaTeX, Affinity Photo, Affinity Designer, GIMP, Inkscape, Illustrator, Adobe InDesign, LilyPond
- Virtualization: LXC, QEMU/KVM, VirtualBox, VMware Workstation, VMware Server, Docker

- Operating systems: Linux (Alpine, Debian, Slackware, Ubuntu), Windows (NT/2000/XP/2003, Vista/7, 10/11)

Experience

Intel Corporation

6 years 4 months

Silicon Firmware Development Engineer

April 2023 - Present (1 year 5 months)

Gdańsk, Pomorskie, Poland

[C++, C, sh]

Working on embedded software projects related to CPUs.

E.g. improving some aspects of power management in future generations of server SoCs.

Firmware Architect

November 2021 - March 2023 (1 year 5 months)

Gdańsk, Pomorskie, Poland

Working on embedded software projects related to non-volatile memory.

E.g. leading FIPS 140-3 readiness of firmware, achieving CAVP validation, marching toward CMVP validation, participating in CMUF WG to drive improvements in FIPS 140-3 Implementation Guidance.

Firmware Engineer

May 2018 - October 2021 (3 years 6 months)

Gdańsk, Pomorskie, Poland

[C, sh]

Working on embedded software projects related to non-volatile memory.
E.g. developing non-patchable bootROM, utilizing portions of it in firmware.

April 2021: Awarded as a Tech Lead by Data Center Platform Engineering & Architecture (DPEA) group. Expertise: ROM/FW Architecture & Integration.

Transbit

Software Designer / Developer

January 2014 - October 2017 (3 years 10 months)

Warsaw, Masovian District, Poland

[C++, C, sh]

Working on embedded software projects providing network solutions for the military.

Designing, developing, debugging, maintaining C/C++ software for embedded systems (ARM, PowerPC) and x86-64. Co-maintaining Linux distribution, packaging software, porting/fixing software to run it on alien platform. Managing development environment (scripting cross-compilation, (re)writing makefiles, maintaining code repositories). Reviewing quality (cleanliness, respecting standards, common practices, good practices and maintainability aspects).

ATM Software

Software Engineer

February 2012 - September 2013 (1 year 8 months)

Warsaw, Masovian District, Poland

[C++, C, sh]

Working on server software project regarding smart grid:

Advanced Metering Infrastructure / ENERGA-OPERATOR SA

Designing and developing C++ backend for data acquisition using dedicated protocols (like P3.2, STG) from metering infrastructure (mostly data concentrator units), triggered by acquisition queue provided via Oracle Coherence, and storing data in Oracle Database using Oracle C++ Call Interface (OCCI). Maintaining Lua script server written in C++.

Related specifications:

- DCSAP: "Data Concentrator Simple Acquisition Protocol" (co-author), ENERGA-OPERATOR SA, 2013

Warsaw University of Technology - Institute of Computer Science Software Architect / Developer

January 2010 - January 2011 (1 year 1 month)

Warsaw, Masovian District, Poland

[C, C++, sh]

Project for Samsung Electronics Poland R&D:

Adapting fault injection techniques to improve Samsung mobile products.

Designing and developing: necessary Linux kernel in-tree modification, out-of-tree Linux kernel module for performing controlled fault injection, Qt application for managing/uploading test cases on target device. Writing documentation.

Bluesoft

Administrator + Programmer

November 2008 - May 2009 (7 months)

Warsaw, Masovian District, Poland

[Java, sh]

Administrating Ubuntu servers used for software development.

Developing Junit-based test framework.

Aenima

Web Developer

July 2007 - September 2007 (3 months)

Warsaw, Masovian District, Poland

[PHP, Ruby]

Porting Ruby on Rails application to PHP on TRAX (involved fixing this framework).

Developing base for internet games platform (website and communication server used by Flash clients).

Danone

IT Trainee

July 2006 - September 2006 (3 months)

Warsaw, Masovian District, Poland

[C, sh, VBS+WMI, AHK]

Developing tools for reporting users' effective rights in Novell NetWare.

Automating information gleaning (accounts, printers) and OpManager configuration.

Education

Politechnika Warszawska

M.Sc., Computer Science · (2005 - 2011)

XIV Liceum Ogólnokształcące im. S. Staszica w Warszawie

Mathematics, Computer Science · (2002 - 2005)