# Andrei Pavel

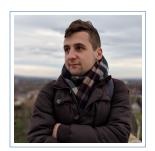
curriculum vitae

Bucharest, Romania

→ +40 (0)748 220 135

□ andrei.pavel@cti.pub.ro

https://github.com/andrei-pavel



#### technical skills (list is not exhaustive)

advanced

C: C11, user-level, Arduino-dialect, OpenMP, MPI, pthread

**C++**: C++17, STL, boost, CUDA, OpenGL, autotools, meson, lcov, cppcheck, clang-tools **Databases**: Cassandra, CouchDB, MSSQL, MariaDB, PostgreSQL, Oracle, Sybase, sqlite

Debugging: cgdb, gdb, gdbgui, lldb, rr

Markup: bpml, css, dtd, json, html, latex, markdown, xml, xsd, xsl

Go: goroutines, reflection, BLE, ORMs, socket.io

Networking: DHCP, DNS, TCP, UDP ip, iw, nftables, ss, tc, tcpdump, Wireshark

Operating systems: Linux, bash, zsh, sed, ripgrep, vim

Version control: git

Virtualization: Docker, docker-compose, Helm, Kubernetes, KVM, libvirt, virsh, QEMU

# work experience (4 years, 7 months) (list is not exhaustive)

Software Engineer (formerly Junior C++ Developer), Qualitance, Romania.

May 2016 — Kea: open-source Linux DHCP server, C++, enhancements present Pull requests to ISC (https://github.com/isc-projects/kea

Pull requests to ISC (https://github.com/isc-projects/kea/pulls?utf8=%E2%9C%93&q=is%3Apr+author%3AandreipavelQ).

o Cassandra data sources

- o DHCPv6 features and features that help migrate to DHCPv6 e.g. lighweight-4o6 DHCP options
- Robot Framework automated system-testing
- live, persistent server reconfiguration
- o integration with Sysrepo data source, NETCONF protocol, YANG model

Backend for Bullguard, antivirus for Mac OS X -> C++, unit tests

- o scanning & quarantining of all file types
- updating the virus database

Runlock: smart-lock system

- BLE beacon advertising & GATT communication
- o Electronic access control of doorlocks using Assa Abloy protocol
- REST

(3 years, 1

month)

Associate Software Engineer, Misys Financial Software, Romania.

August 2014

Development of treasury and capital markets software

- October

- Implemented support for Negative Rates in Money Market Rollover (3 months).
- Maintenance and bug-solving (12 months). 2015 (1 year,
  - Worked with services distributed using CORBA across Windows, UNIX, Solaris querying Oracle, MSSQL, Sybase databases.



2 months)

Developed business objects (C++) and front-end functionality (C#) for Summit.

### Software Engineering Intern, Intel®, Romania.

June 2013 — October 2013 (3 months)

Application development and performance optimizations in the high performance computing Accomplishments:

- o Contributed to the development of parallel applications designed to benchmark HPC devices.
- Benchmarked the Intel<sup>®</sup> XeonPhi<sup>TM</sup> coprocessor during the early days of it's release.
- Used C, C++, OpenMP, native threading, low level intrinsics for more fine grained optimizations, Intel<sup>®</sup> vTune<sup>TM</sup> Amplifier for profiling and characterization studies.

#### books (list is not exhaustive)

currently

The way to Go, by Ivo Balbaert.

reading

https://www.goodreads.com/book/show/13553772-the-way-to-go

latest read

Seven Databases in Seven Weeks: A Guide to Modern Databases and the NoSQL **Movement**, by Eric Redmond.

https://www.goodreads.com/book/show/25334471-optimizing-software-in-c

more on Goodreads

https://www.goodreads.com/user/show/63238106-andrei-pavel.

## portfolio (list is not exhaustive)

2019 Radio România Actualităti Podcasts, Android app written in Dart with Flutter#.

https://play.google.com/store/apps/details?id=ro.radioromaniaactualitati. podcasts

2017-2018 portunus, aggregates all package managers under one tool.

https://github.com/andrei-pavel/portunus

2014 Rapunzel, simulation and rendering of hair in real time using GPGPU techniques.

https://github.com/andrei-pavel/rapunzel

studies (list is not exhaustive)

2010-2014

Bachelor of Computer Science, Politehnica University of Bucharest, Romania. Automatic Control and Computer Science with major in Computer Systems Architecture

Simulation and rendering of hair in real time using GPGPU techniques an algorithmic approach to the problem of real time simulation and rendering of hair in a highly-parallel multi-core environment