Ardelean Alexandru-Aleodor

Embedded SW/Linux Kernel Engineer

Contact details

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Location: Cluj-Napoca

About Me

Embedded software developer, primarily skilled in C, shell, some Python, some automation, and some various other topics. Contributor to various open-source projects (Linux kernel, OpenWrt, and other).

Github profie: https://github.com/commodo/

Linux kernel contributions: roughly 1400+ (code contributions and reviews, I had some links in my resume, but I removed them because they tend to break too often)

When searching for "Alexandru Ardelean" in the git kernel tree, I should show up there with ~450 commits (submitted with 3 email addresses).

Professional Experience

May 2022 - Present

Freelancer/contractor for Embedded/Linux projects

Role: ¯_(ッ)_/¯

Company: Shruggie Location: Cluj-Napoca

Clients I've had along this trip:

- STIHL (through Gemma Computing): features and performance improvements for the iMOW (lawn-mower robot) launched in 2023
- Ateme (through Devigon Labs): rework of a TS muxer library for a HW video encoder
- Allegro DVT (through Deviqon Labs): continue work on emulator for HW IP designs
- BrightGrove (consultancy group): develop platform for a new line of smart TVs (for a customer of BrightGrove)
- MathWorks (makers of Matlab/Simulink): kernel support for RF applications

March 2021 -February 2023

Devigon Labs

Role: Senior Software Engineer

Location: Cluj-Napoca

Write software aimed at services for the streaming & television industry

Clients:

- Ateme (acquired Anevia): create and extend software for video/audio/TV streaming and DRM
- Allegro DVT: create emulator for a HW IP designs (for video decoders)

December 2017 - February 2021

Analog Devices Gmbh

Role: Linux Kernel Engineer Location: Cluj-Napoca

Role includes:

- Work on Linux kernel drivers for Analog Devices parts (ADCs, DACs, accelerometers, IMUs)
- Work and enhancements (to the Linux kernel) to better support Analog Devices parts
- Continuously interact with Linux kernel community by submitting changes to the Linux kernel
- Internal code review for new changes being added to the Analog Devices kernel repository

Boards/carriers used:

- Xilinx Zynq 7 series: ZedBoard, ZC706, ZC702
- Xilinx ZyngMP series: ZCU102, ZU11EG
- Intel/Altera Arria10 SoC

Links:

https://github.com/analogdevicesinc/linux/commits?author=commodo

https://patchwork.kernel.org/project/linuxiio/list/?submitter=178229

2016 - 2022

Co-maintainer of the mstpd package

Role: Co-maintainer Location: <u>Github</u>

Co-maintain the mstpd package/code-base (Multiple Spanning Tree Daemon) with other developers

https://github.com/mstpd/mstpd/commits?author=commodo

2014 - Present

Open-source contributor to OpenWrt

Role: contributor

Location: Github / git.openwrt.org

OpenWrt is an embedded Linux distribution for routers.

Contributor of various patches to core OpenWrt.

https://github.com/openwrt/openwrt/commits?author=comm

<u>odo</u>

Maintainer of a few packages in the packages feed:

https://github.com/openwrt/packages/commits?author=com

<u>modo</u>

January 2014 - December 2017

Ocedo / Riverbed Technology

Role: Embedded Software Engineer

Location: Cluj-Napoca

<u>Riverbed</u> acquired Ocedo (which was a small networking startup based in Karlsruhe Germany).

Develop and maintain software modules and drivers for network gateways, switches and access-points.

- Integration of 3G/4G connectivity in gateways
- Integration of Spanning Tree (STP) and Link-Layer Discovery (LLDP) protocols in switches
- Support for some Broadcom switch chips
- Internal code reviews

April 2013 - January 2014

Betfair.com

Role: DevOps for internal tooling

Location: Cluj-Napoca

Maintenance & support for internal tools: Gitlab, Perforce, SVN, Jenkins, Atlassian (Confluence, JIRA, Fisheye), Fortify.

Automation of deployment processes using various tools (Jenkins CI, Chef, Puppet).

November 2012 - April 2013

EBS Romania (currently NTT Romania)

Role: Embedded Software Engineer for Automotive

Location: Cluj-Napoca

Develop SW & documentation for Continental Automotive for various work on instrumentation clusters.

August 2011 -November 2012

NSpyre Romania (currently Capgemini Romania)

Role: Softwre Engineer Location: Cluj-Napoca

Write software modules & documentation for controlling highly complex industrial machines, for ASML

(https://www.asml.com/en)

March 2007 - August 2011 National Instruments Romania

Role: Software Engineer Location: Cluj-Napoca

- Primarily worked on Pharlap (RTOS)
- Write drivers for ethernet cards for PXI products for the Pharlap OS
- Develop & maintain the TCP/IP stack on the Pharlap
- Add advanced debugging features to Pharlap OS to better debug network issues
- Maintain LabVIEW network primitives across Windows, MacOS, Linux, Pharlap and VxWorks operating systems

Education

2003 - 2008

Technical University of Cluj-Napoca
Computer Science Department (English Section)

"Mihai Eminescu" High School - Satu Mare
Mathematics and Informatics (English Section)