

Vlad Victor Ungureanu

Embedded Device Programmer

PERSONAL DETAILS

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EDUCATION

BSc. Computer Science, Aug 2012 - Present
Jacobs University Bremen

High School Diploma , Sept 2008 - Jun 2012
Colegiul National Roman Voda

WORK EXPERIENCE

Embedded Software Developer Intern

Jun 2014 - Aug 2014

Texas Instruments

I improved the work flow of automatically generating header files for a new ARM CortexM chip. I put up an Open Source development environment based on GNU ARM for Linux and Windows. Also developed a flash driver for OpenOCD in order to flash code on a CortexM chip. Wrote multiple test cases and did code profiling on accessing chip registers in 2 ways. I also developed a configuration tool in Qt that enables the user to set-up the security features of a specific target. All my work has been done in C, ARM Assembly and C++. The scripting part has been done in TCL.

Student Researcher

Mar 2014 - Jun 2014

Computer Networks and Distributed Systems Jacobs University

Developing an HTTP implementation for the Large Measurement Platform Protocol. The controller and measurement agent implementations are done in Python.

Embedded Developer

Jun 2013 - Sept 2013

BeagleBoard.org, Google Summer of Code 2013 Student

I developed an Android app that communicates with a BeagleBoneBlack, allowing it to boot over USB. Upon boot, the Android device pushes a micro-kernel, which emulates a serial device. This is used to download the filesystem and full kernel image. Next, I ported this from Android to Linux. Development was done in Java (Android SDK), along with some C (patches to Android kernel, libusb, Linux-port).

Software Developer and Tester

Nov 2009 - Jan 2010

FFmpeg/Libav, Google Code-IN 2010 Student

I worked on improving test coverage across FFmpeg/Libav codecs. My tests improved coverage from 20% to 60%. I also worked closely with codec maintainers to remove bugs related to playing corrupted files. All work was done in C.

COMPUTER SKILLS

<i>Advanced Knowledge</i>	C, C++, Linux
<i>Intermediate Knowledge</i>	Python, Java, SML
<i>Basic Knowledge</i>	Bash, ARM Assembly, TCL

AWARDS AND HACKATHONS

2013 **2nd place at AngelHack Barcelona**
2011 **4th place in Cisco Contest**
Romania Team Participant, Europe
2010 **1st place in Cisco AcadNet Contest**
Computer Networks Section, Romania

HOBBIES

Active member of BeagleBoard.org community
Tweaking Electronics
Contributing to Open Source Software

PROJECTS

Mentor for BeagleBoard.org GSoC 2014

I took the GSoC challenge to the next level and applied as a mentor for BeagleBoard.org. The student I have mentored worked on a remote display over USB for the BeagleBone Black. I have helped him with the development of a USB Kernel driver, a framebuffer driver and an Android application. My tasks were to monitor the progress of the project, do code reviews and guide the student in finding the best solution to the problems that were encountered.

CLAM

I developed a system that aides an instructor with quiz administration. Quizzes and account information are stored on the server, while a client application (Windows/Linux) is used to login and perform actions. Students can take quizzes, view results, while instructors have more privileges. The grading is done automatically by the software. The implementation was done in Ruby.