Adrian Hodoș

Curriculum vitae

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Work experience

December 2020 - November 2021
Software developer, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș
Job description :
- Software developer for external project (Hella Aglaia - Cassandra Studio)
- Implementation of a plugin to automatically convert between different versions of data provided by various sensors
- tools used: C++/CMake/Python/libClang

April 2020 - December 2020
Software developer, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș
Job description :
- Software developer for internal Arobs project
- Implementation of functionality according to specifications
- tools used: Toradex Apalis iMX6 on IXORA carrier board, C++, Yocto Linux, Qt, QML, OpenGL, GLSL, CMake

April 2019 - April 2020
Software developer, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș
Job description :
- Software developer for the Aston Martin DBX instrument cluster
- Implemented different HMI modules according to client specifications (engine oil level screen, gearbox oil temperature overlay, gear shift-up overlay, cruise control and speed limiter indications)
- tools used: Integrity RTOS, C++, Green Hills Compiler suite and debugger, Visual Studio 2005/2015, Vector CANoe, CxxTest unit testing framework, Altia Design, QAC, CMake

September 2017 - March 2019
Software developer, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș
Job description :
- Software developer for Continental telematics project
- Implemented Bluetooth Low-Energy support for the middleware's API interface
- Implemented a generic module that retrieved data from Bluetooth LE sensors
- tools used: C++, Linux, GCC, GDB, Valgrind, JavaScript for the web-based configuration tool

March 2017 - September 2017
Software developer, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș
Job description :
- Software developer for Aston Martin DB11 IC project
- Writing unit tests for various software components, checking code coverage
- tools used: Green Hills Compiler suite and debugger, Visual Studio 2005/2015, Vector CANoe, CxxTest unit testing framework, QAC

September 2016 - March 2017
Software developer, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș
Job description :
- Developer for Jaguar-Land Rover research project
- Designed and developed software to transfer images from externally car-mounted cameras, process and display the images to the driver
- tools used : iMX6 Sabre, Yocto Linux, C++, OpenGL + GLSL

May 2015 - September 2016	**Software developer**, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș **Job description :** ○ C++ HMI (human machine interface) developer for a digital instrument cluster used in the Aston Martin DB11. ○ areas of responsibility : Media, Radio, Telephone components and input/output comunication with the automotive controller for these components. ○ tools used : Green Hills Compiler suite and debugger, Visual Studio 2005/2015, Altia Design, Vector CANoe.
June 2014 - May 2015	**Software developer**, *SC AROBS Transilvania Software SRL*, Tîrgu Mureș, Mureș **Job description :** ○ maintaining, improving and expanding functionality, bug fixing for an internal tool used at Continental Corporation ADAS (Advanced Driver Assistance Systems) ○ tools used : Visual Studio 2010, C++11, WTL, STL
April 2013 - June 2014	**Software developer**, *Cadsoft SRL*, Tîrgu Mureș, Mureș **Job description :** ○ implemented from scratch a renderer (using DirectX 11.0) that is used in almost every product of Cadsoft to produce images of geometric objects in a Revit project. ○ maintaining, improving and expanding functionality for existing products, bug fixing, porting of existing code to the latest Revit editions (RoomBook, BuildingBook, AreaBook). ○ I was involved in a pilot project to design and implement a distributed computing solution for the company's Revit addons. ○ tools used : Visual Studio 2010/2013, C++11, Revit SDK
July 2010 - March 2013	**Software developer**, *On my own*, Tîrgu Mureș, Mureș Worked on personal projects, mainly using C++11.
January 2008 - July 2010	**Software developer**, *SC Amplusnet SRL*, Tîrgu Mureș, Mureș **Job description :** ○ development of new software products according to the issued specifications ○ maintaining, improving and expanding functionality for existing products ○ fixing of bugs reported by the QA team or by clients ○ I was involved in the development of these products : Application Blocker (parental control software), Cyclope Employee Surveillance (client and server), Stealth Keylogger, IP Hider. ○ tools used : Visual Studio 2008/2010, C++, Windows SDK, STL, WTL, MFC, Qt

Education

2007-2012	**Computer science**, *Petru Maior University*, Tîrgu Mureș, Mureș

Other studies

Nov. 2012 - Feb. 2013	**Coursera** Heterogeneous Parallel Programming - `https://www.coursera.org/course/hetero`. Online parallel programming course (GPU programming using NVIDIA's CUDA API). The topics covered were : parallel execution model, memory models and GPU architecture, parallel algorithms and patterns (stencil, scan, tiled convolution, reduction), overlapping data transfer with computation.
Feb. 2013 - May 2013	**Udacity** Introduction to parallel programming - `https://www.udacity.com/course/cs344`. Online parallel programming course (GPU programming using NVIDIA's CUDA API). Topics covered in this course included : GPU programming model and architecture, parallel algorithms and patterns (scan, stencil, tiling, histogram, reduction, binning, parallel sorting algorithms), optimization techniques for GPU programming.

Programming skills

Programming languages

- C++ : standards C++98, C++03, C++11, C++14, C++17, C++20 medium level
- Rust ®: medium level
- C : medium level
- Python 🐍, LUA - beginner, I have not used them for a while
- C#, JAVA - beginner

Technologies/libraries/tools

- generic, functional and object oriented programming
- STL, Windows SDK, MFC, Qt, SQL, Boost, Google Testing Framework
- Intel Thread Building Blocks
- Graphics APIs and shading languages: DirectX, HLSL, Vulkan, OpenGL and GLSL
- CUDA, Nvidia Nsight, RenderDoc
- Emacs + Vim/NeoVim ☺

Personal projects

- You can check out my personal projects on BitBucket ⬇ (mostly written in C/C++/Rust) `https://bitbucket.org/adrianhodos/workspace/repositories`.

Foreign languages

English | very good

Skills

- self-taught
- I love to learn new things and I always seek to improve my professional skills
- punctual, motivated, optimistic

Interests

- C++ and Rust ®programming languages
- parallel programming
- real time rendering and ray tracing, Vulkan/OpenGL/DirectX
- mathematics