

Miroslav Vitkov

Curriculum Vitae

TECHNICAL SKILLS

EXPERT	<ul style="list-style-type: none">* C++14* C11* git
PROFICIENT	<ul style="list-style-type: none">* (embedded) GNU/Linux, Bash scripting* python3, matplotlib, numpy* CMake, GNU make* L^AT_EX* R
EXPERIENCED	<ul style="list-style-type: none">* MatLab* digital and analog hardware design* USB, I2C, SPI firmware* Autodesk Inventor, SolidWorks, CATIA* SDL2, OpenGL* Haskell* OpenCV* PyQt

COMMUNICATION SKILLS

BULGARIAN	C2: Native speaker
ENGLISH	C2: Fluent (Cambridge CPE)
GERMAN	A1: Basic



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EDUCATION

2007 – 2016	Industrial Engineering (in English) BACHELOR THESIS: MULTITASKING AUTOTUNING PID CONTROLLER IN HEAT TRANSFER APPLICATION <i>Technical University of Sofia</i>
2003 – 2007	Communications technician HIGH SCHOOL DIPLOMA <i>Technical School of Communications, Sofia</i>

PUBLIC PROJECTS

C++	identity <i>Identify persons. Uses OpenCV.</i>
C	micli <i>Micro CLimate controller, an autotuning PID regulator.</i>
C	megaboot <i>Simple atmega168 bootloader.</i>
C	cgetset <i>Generate getter/setter methods. Self-contained.</i>
PYTHON	rtplot <i>Realtime temperature plotting utility.</i>
HASKELL	voiceid <i>Identify different persons via speech.</i>
LAT _E X	rpg <i>Role-playing game.</i>
INVENTOR	gearbox <i>Gearbox design and technical drawings.</i>

WORK EXPERIENCE

04 JAN 2016 - 07 SEP 2017

Euro Games Technology

C++ Linux developer

Developing core functionality for a large C++ system, subject to certification, legislation and money handling. Some of the daily tasks include:

- GNU utilities, Linux sockets, IPC, multithreading, bash scripting
- C++14, CMake, clang-tidy
- OpenGL, SDL2
- Bill acceptor device failsafe communication and control
- scripting for gitolite server administration

20 MAY 2013 - 21 MAR 2015

Antelope Audio

C++ embedded developer

Implementation of a complex audio processing algorithm in C++ for ARM. Audio signal processing design (z-transform, filters, impulse response, amplitude and phase diagrams). GUI design with Python and Qt. OpenOCD and hardware considerations.

12 FEB 2013 - 13 MAY 2013

Johnson Controls

C embedded developer

Embedded C, concurrency, unit tests and documentation.

22 AUG 2011 - 15 JAN 2013

MM Solutions Ltd

C++ embedded developer

C++ with Boost, OpenCV etc. libraries for ARM. GNU/Linux and git. Digital video processing in 3D environment (quaternions, field of view, image recognition, gyroscopes).