

# Miroslav Vitkov

## Curriculum Vitae

### WORK EXPERIENCE

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).

### TECHNICAL SKILLS

GOOD LEVEL	C++, stl, C, git, GNU make
INTERMEDIATE	Bash, Analog and digital hardware design, GNU/Linux, LaTeX, OpenOCD, Matlab, Digital signal processing, Python, Inventor, Eclipse, CMake, USB firmware
BASIC LEVEL	Windows, G-Code, MySQL, subversion, MySQL, sed, Search algorithms, Data structures, Prometeus, OrCAD, AutoCAD, PSpice

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### EDUCATION

2007 – 2011	<b>Industrial Engineering (in English)</b> BACHELOR DEGREE, CLASS ACTIVITIES FINISHED, BUT DIPLOMA PENDING AROUND FEB 2016! <i>Technical University of Sofia</i>
2003 – 2007	<b>Communications technician</b> HIGH SCHOOL DIPLOMA <i>Technical school of communications, Sofia</i>

### PUBLIC PROJECTS

C++	<b>lapcam</b> <i>Use OpenCV's face recognition algorithms.</i>
C	<b>megaboot</b> <i>Simple atmega168 bootloader.</i>
C	<b>libcontrol</b> <i>Autotuning pid regulators for tiny targets.</i>
PYTHON	<b>graph_temperature</b> <i>GUI to track temperature changes over different time frames.</i>
LATEX	<b>rpg</b> <i>Role-playing game, just the rules/manual.</i>
INVENTOR	<b>gearbox</b> <i>Gearbox design and technical drawings.</i>

### COMMUNICATION SKILLS

BULGARIAN	Native speaker
ENGLISH	Fluent (CPE Cambridge)
GERMAN	Basic