




# Miroslav Vitkov

## Curriculum Vitae

### TECHNICAL SKILLS

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GOOD LEVEL	<ul style="list-style-type: none"><li>* C++11, STL, OpenCV,</li><li>* C11, UNIX,</li><li>* git, GNU make, CMake</li></ul>
INTERMEDIATE	<ul style="list-style-type: none"><li>* python2, matplotlib, numpy, PyQt</li><li>* USB bus, OpenOCD,</li><li>* POSIX</li><li>* avr-asm, digital hardware design,</li><li>* LaTeX, Doxygen, UMLet</li><li>* Inventor, SolidWorks</li></ul>
BASIC LEVEL	<ul style="list-style-type: none"><li>* FANUC G-Code,</li><li>* MySQL</li></ul>

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### EDUCATION

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2007 – 2011	<b>Industrial Engineering (in English)</b> BACHELOR DEGREE MULTITASKING AUTOTUNING PID CONTROLLER IN HEAT TRANSFER APPLICATION <i>Technical University of Sofia</i>
2003 – 2007	<b>Communications technician</b> HIGH SCHOOL DIPLOMA <i>Technical School of Communications, Sofia</i>

### COMMUNICATION SKILLS

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BULGARIAN	Native speaker
ENGLISH	Fluent (CPE Cambridge)
GERMAN	Basic

### PUBLIC PROJECTS

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C++	<b>identity</b> <i>Identify persons. Uses OpenCV.</i>
C	<b>megaboot</b> <i>Simple atmega168 bootloader.</i>
C	<b>cgetset</b> <i>Generate getter/setter methods. Self-contained.</i>
PYTHON	<b>rtplot</b> <i>Realtime temperature plotting utility.</i>
LATEX	<b>rpg</b> <i>Role-playing game.</i>
INVENTOR	<b>gearbox</b> <i>Gearbox design and technical drawings.</i>

## WORK EXPERIENCE

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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, concurency, 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).