# 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 ∠ | Sofia, Drouzba-2, block 202, app. 40

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#### **EDUCATION**

2007 – 2011 Industrial Engineering (in English)

BECHELOR DEGREE, CLASS ACTIVITIES FINISHED, BUT DIPLOMA PENDING AROUND FEB 2016!

Technical University of Sofia

2003 – 2007 Communications technician

HIGH SCHOOL DIPLOMA Technical school of commu-

nications, Sofia

### PUBLIC PROJECTS

C++ lapcam

*Use OpenCV's face recognition algorithms.* 

C megaboot

Simple atmega 168 bootloader.

C libcontrol

Autotuning pid regulators for tiny targets.

PYTHON graph\_temperature

GUI to track temperature changes over different time

frames.

LATEX rpg

Role-playing game, just the

rules/manual.

INVENTOR gearbox

Gearbox design and technical

drawings.

#### COMMUNICATION SKILLS

Bulgarian Native speaker

ENGLISH Fluent (CPE Cambridge)

GERMAN Basic