



Daniel Davídek

Objectives

Programming and rapid development. 3D printing
Time efficient use of technology in working environment.
Robotics and embedded microcontroller systems.

Personal

1991–28–01, Přerov, Czech Republic
camp-leader, guitar & singing, Ultimate, juggling, socializing

Contacts

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CV up to date : 30–03–2017

Education

Doctoral [Phd.] (full-time): Computer Vision Group, BUT, Brno	2015– XX
Masters [Ing.] (full-time): Cybernetics, Automation and Measurement, BUT, Brno	2013–2015
Bachelors [Bc.] (w/honors): Automation and Measurement, BUT, Brno	2010–2013

Experience

Engeto Academy - Python intermediate course 3 lectures, Brno 2017

Courses

Competitions

Articles

Conferences

Conferences & articles 2016

- **EEICT** - Image Processing Algorithm Visualiser (IPAV) - Python3, OpenCV3, kivy, camera
- **PDeS** - Contour silhouette back projection based multiple camera convex hull reconstruction
- **Mendel** - Odometer module for mobile robot with position error estimation

Masters thesis - Advanced Visual Telepresence Final mark: B, pdf: goo.gl/GZZIKr 2015

Freescale Semiconductor 6 months (part-time), Brno May 2014

- Software engineer and tester, C-language, Jira, Accurev, git
- Processor Expert development, FSL devel. boards testing and PEx support

Robotic day in Prague 2014 mini-sumo robot - competition Q2 2014

Fellowship with CVVI 3 months (part-time), Brno Q2 2013

- STM8 program & state machine, PCB with GSM-module, C# GUI with image editor

Bachelor thesis - Odometric module for mobile robot Final mark: A, pdf: goo.gl/fvKPjM 2013

Architectures for RT processing for robotics 12-day mechatronics course, Dresden Q3 2012

ČEZ summer-school 2-week educational course, Dukovany Q3 2012

GE-Foundation Scholar-Leaders program 10-day self-development course, Budapest Q2 2012

Robotic day in Prague 2012 mini-sumo robot - competition (5th place) Q2 2012

Knowledge & Skills

Programming : { **solid** : [C, C++, Python3+, Micropython, C#, MatLab, AutoHotKey, L^AT_EX], **basic** : [PHP, Bash, Vim-Script, win-cmd, MySQL], **devices** : [RaspberryPi, STM32, STM8, ATmega, Android, win7, xubuntu alike], **py** : [kivy, tkinter, blender-api, numpy, cv2, pygame, pandas, flask, redis] }

Visual design : Blender, OpenSCAD, SketchUp, Gimp, Inkscape, Pencil drawing, Flash animation, Adobe Premiere

Electronics : Eagle, SMD soldering, Digital MCU PCB design, Oscilloscope measurement

Protocols : { **bitbanged** : [UART, I2C], **used** : [SPI, RS232, RS485, SSH, FTP] }

www&data : WordPress, Flask, Drupal, git, svn, AccuRev

Math&physics : Calculus, Signal processing & regulation, filtering FFT, 3D graphics geometry matrices, national physics competition (2009)

Sensors : wide spectrum of common physical and electrical sensor construction and function knowledge

Visual processing : OpenCV3, Matlab, common image processing algorithms knowledge, multiview 3D reconstruction, multiple-camera calibration

Neural networks : MATLAB subject in school - tough exercises (2016)

Robotics : common path planning, localisation and map creation, state control

Exploited devices : Ultrasound, Camera, Gamepad, LCD1602, RTC, DC and stepper motors, 3-axis accelerometer

Languages : **Czech, English**, Russian, French, Slovak

Driver's license : **B**