



I am a perfectionist developer, researcher, and clean code enthusiast with passion for clarity, intellectual and mathematical rigour in technical and scientific expression. My interests lie in many aspects of embedded and distributed systems - ranging from research to hardware design and embedded software implementation.

Professional Experience

Embedded Software Engineer	May 2018 – present — TESCANA BRNO S.R.O. ■ Embedded software development for electron microscope subsystems ■ Implementation of the Test Driven Development and Clean Code practices in embedded software development ■ Design of the build environment allowing for automated testing and building in CI/CD systems ■ Automation of software development-related tasks using python and bash scripts
Research Engineer	Jan. 2017 – Mar. 2018 — CCI PARIS ILE-DE-FRANCE ■ Collaboration on smart city related research project ■ review of the scientific literature ■ mathematical models design ■ design of simulation platforms ■ simulation execution and evaluation of results
Software Engineer	Jun. 2014 – Dec. 2016 — BIOSDESIGN S.R.O. ■ Collaboration on couple software development projects in C# and C++ ■ hardware and software integration
Technical Support	Apr. 2013 – Jun. 2014 — HONEYWELL AEROSPACE ■ Work on the Navigation Prototyping Platform ■ development of the embedded part using DEOS Real Time Operating System in C programming language ■ development of PC application for logging measured data in C# ■ software testing ■ hardware and software integration

Skills

Programming Languages	C ■ C++ ■ C# ■ Objective-C ■ Java ■ Python ■ MATLAB and Simulink ■ VHDL ■ Bash ■ PHP ■ SQL ■ JavaScript ■ HTML ■ CSS and SCSS
APIs	Win32 ■ .NET ■ POSIX (GNU/Linux) ■ FreeRTOS ■ DDC-I DEOS ■ ANSI C standard library
Tools	GNU Make ■ GNU Compiler Collection ■ GNU Debugger ■ Vim ■ MS Visual Studio ■ Cygwin/MinGW ■ NetBeans IDE ■ Eclipse ■ Version Control Tools – Git and Subversion ■ CI/CD Systems
Theory	System/Control Theory ■ Calculus ■ Optimization ■ Microcontroller powered embedded system design ■ Real-Time Systems ■ Operating Systems Principles ■ Test-Driven Development
Engineering	Digital circuit design ■ Cryptography ■ PCB layout ■ PCB assembly
OS Administration	GNU/Linux ■ Windows ■ macOS
Languages	Slovak – native language ■ English – full professional proficiency (C1-C2) ■ German, French – elementary proficiency
Documents Authoring	LaTeX ■ MS Office ■ Doxygen ■ Markdown
Graphics & Design	GIMP ■ Inkscape ■ HTML and CSS
Driving	EEA Licence Categories: B1, B, AM

Interests	New technologies ■ Tech blogging ■ Writing scripts to automatize menial and repetitive tasks ■ Philosophy ■ Playing guitar ■ Hiking ■ Gym ■ Cooking
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Education

Doctoral degree (PhD)	2014 – present — Cybernetics, Automation and Measurement at Brno University of Technology ■ <i>Final Thesis</i> : Optimal Scheduling of Resource-Constrained Real-Time Distributed Systems ■ <i>Study Abroad</i> : ESIEE Paris, France (Sep. 2015 – Jun. 2016)
Master's degree (Ing)	2012 – 2014 — Cybernetics, Automation and Measurement at Brno University of Technology ■ <i>Final Thesis</i> : Weather Station with Ethernet Interface
Bachelor's degree (Bc)	2009 – 2012 — Control and Instrumentation at Brno University of Technology ■ <i>Final Thesis</i> : Wireless transfer of image between the PCs 2005 – 2009 — Electrical and Electronics Engineering at secondary professional school (Stredná Priemyselná Škola v Trnave)

Publications

2018	Stefan Misik, Jakub Arm, and Zdenek Bradac. Formulation and simulation of receding horizon control over mixed logical dynamical system. In <i>15th IFAC Conference on Programmable Devices and Embedded Systems - PDeS 2018</i> , volume 51, pages 390–395. Elsevier BV, 2018. doi: https://doi.org/10.1016/j.ifacol.2018.07.185
2017	Stefan Misik, Zdenek Bradac, and Arben Cela. Reducing usage of the computational resources by event driven approach to model predictive control. <i>Journal of Electrical Engineering EC</i> , 68(4):290–298, September 2017. ISSN 1335-3632. doi: https://doi.org/10.1515/jee-2017-0041
2016	Stefan Misik, Arben Cela, and Zdenek Bradac. Distributed systems - a brief review of theory and practice. In <i>14th IFAC Conference on Programmable Devices and Embedded Systems - PDeS 2016</i> , pages 133–138, 2016a. doi: https://doi.org/10.1016/j.ifacol.2016.12.057 Stefan Misik, Arben Cela, and Zdenek Bradac. Optimal predictive control - a brief review of theory and practice. In <i>14th IFAC Conference on Programmable Devices and Embedded Systems - PDeS 2016</i> , pages 133–138, 2016b. doi: https://doi.org/10.1016/j.ifacol.2016.12.058
2015	Stefan Misik, Zdenek Bradac, Jakub Arm, and Ladislav Stastny. Embedded telemetry system with data presentation using http and data logging. In <i>13th IFAC Conference on Programmable Devices and Embedded Systems - PDeS 2015</i> , pages 101–106, 2015. doi: https://dx.doi.org/10.1016/j.ifacol.2015.07.015