# Maciej P. Kopeć

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#### Education

2015–2016 **PhD**, *AGH-UST*, Cracow.

Major: Physics at Faculty of Physics and Applied Computer Science

2014–2015 MSc. AGH-UST, Cracow, 5.0.

Major: Technical Physics at Faculty of Physics and Applied Computer Science

2010–2014 BSc, AGH-UST, Cracow, 4.5.

Major: Technical Physics at Faculty of Physics and Applied Computer Science

# Professional experience

December 2014 - Beam diagnostics and Instrumentation Specialist, National Synchrotron Radipresent ation Centre 'Solaris'.

- Electronic readout and measurement systems design.
- Design for manufacture and cases.
- Electronic prototyping.
- Electrical reworking.
- Beam instrumentation diagnostics and assembly.
- Beam diagnostic equipment design and maintenance.

May 2016 – Embedded systems developer, Organisation Européenne pour la Recherche Nu-August 2016 cléaire (CERN).

- Development of 1G ethernet link on ZC706 evaluation board using Zyng SoC
- Detector readout systems testing and debugging
- Setting up development environments for detector readout systems

January 2014 – Hardware development intern, Woodward Poland sp. z o.o..

June 2014 o Electrical circuit design.

- Reworking and servicing PCB prototypes (e.g. soldering under a microscope, test setup preparation).
- Measurements and data analysis.
- RoHS directive compliance verification.

July 2013 - Electrical engineering trainee, Faculty of Physics and Applied Computer Science.

August 2013  $\,\,$  o Programming microcontrollers with ARM Cortex-M3 core.

2008–2013 **Web-developer**, Back-end and front-end web development.

- Preparing graphic files for HTML and CSS coding.
- HTML, CSS and jQuery front-end development.
- Preparing custom templates for Wordpress.
- Writing plugins and snippets for CMS systems(Wordpress, Joomla).

Courses and certificates

In progress Advanced Hardware Design

FEDEVEL Academy

In progress Advanced PCB Layout Course FEDEVEL Academy December 2016 Learn Altium Essentials FEDEVEL Academy PCB design at RF — multi-Gigabit transmission, EMI control April 2016 Cadence GmbH and PCB materials

# Last year publications

April 2016 Essential high-speed PCB design for signal integrity

#### As a corresponding author

o Universal digital aggregator for in-line signal processing, M.P. Kopeć et al., IPAC

Cadence GmbH

#### As a co-author

- Performance of Solaris storage ring, A.I. Wawrzyniak et al., IPAC 2017
- Beta function measurement in the Solaris storage ring, A. Kisiel et al., IPAC 2017

# University and private projects and designs

July 2014 – Master thesis.

Sptember 2015 Subject: Control interface for SALT ASIC for LHCb detector tracker upgrade

Hardware I<sup>2</sup>C interface implementation in Verilog.

July 2013 - Bachelor thesis.

October 2013 Subject: Demo application for colour touchscreen working in embedded system

 Design and implementation of GUI library for LPC1768 microcotroller with a demo application.

# Languages

English Fluent (FCE)

Russian Basic

Japanese Basic Learning in progress

## Other skills

Programming C, C++ (basic), Python, Verilog, SystemVerilog, VHDL, SQL (more than basic),

languages MATLAB (basic), Simulink(basic)

KiCad, EAGLE 6 (schematic and layout), Altium Designer, LTspice IV, Xilinx ISE,

Design software Xilinx Vivado (more than basic), Xilinx SDK (basic), Keil uVision, Atmel Studio,

**Eclipse** 

Other software and technologies

Linux, LATEX, git, Wordpress, MS Office

Additional SEP 1 kV license, driving license, good knowledge of circuits and signals qualifications theory, coping with analytical problems

#### Interests

o volleyball, cycling, books, snooker, e-sports, physics.

### Disclaimer

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