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Born in Itża

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Maciej P. Kopeć

Education

- 2015–present **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
- 2007–2010 4th High School, Radom *Specialization: mathematics and physics*

Professional experience

- December 2014 – present National Synchrotron Radiation Centre “Solaris” *Beam instrumentation and diagnostics specialist*
 - 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
- January 2014 – June 2014 Woodward Poland sp. z o.o. *Hardware development intern*
 - 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 – August 2013 Faculty of Physics and Applied Computer Science *Electrical engineering trainee*
 - Programming microcontrollers with ARM Cortex-M3 core.

Courses and certificates

- Later in 2016 Advanced PCB Layout Course *FEDEVEL Academy*
- Later in 2016 Learn Altium Essentials *FEDEVEL Academy*
- April 2016 PCB design at RF — multi-Gigabit transmission, EMI control and PCB materials *Cadence GmbH*
- April 2016 Essential high-speed PCB design for signal integrity *Cadence GmbH*

University and private projects and designs

- October 2014 – Free fall measurement device *University project*
January 2015
 - Atmega8 based custom PCB designed to measure free fall dynamics using LEDs and phototransistors. Data is acquired by an internal 10-bit SAR ADC and then sent to a PC via RS-232 port.
 - Fully functional revision 1.
 - Revision 2 hardware prototyping in progress.
- July 2014 – Control interface for SALT ASIC for LHCb detector tracker upgrade *Master thesis*
September 2015
 - Hardware I²C interface implementation in Verilog.
- June 2014 – Analog filter measurement automation software *University project*
September 2014
 - RS-232 based software written in Python to automate analog filter measurements. Currently beta version. Will be used as a part of the Electronics lab for third year students.
- December 2013 – PS/2 driver in Verilog *University project*
January 2014
 - Design, implementation, synthesis and simulation of simple PS/2 driver in Verilog.
- October 2013 – Digital to analog converter *University project*
December 2013
 - Parallel loaded, resistor ladder based, 8-bit DAC with nonlinearities less than 0.5 LSB, simulations included temperature sweep and Monte Carlo simulations.
- July 2013 – Demo application for colour touchscreen working in embedded system *Bachelor thesis*
October 2013
 - Design and implementation of GUI library for LPC1768 microcontroller with a demo application.

Languages

English	Fluent (FCE)
Russian	Basic

Other skills

Programming languages	C, C++ (basic), Python, Verilog, SQL, PHP, MATLAB (basic), Simulink(basic)
Design software	KiCad, EAGLE 6 (schematic and layout), DxDDesigner and Expedition PCB (more than basic), Cadence (Schematic, ADE, Layout, digital simulation), LTspice IV, Xilinx ISE
Other software and technologies	Linux, L ^A T _E X, git, Wordpress, MS Office
Additional qualifications	SEP 1 kV license, driving license, good knowledge of circuits and signals theory, coping with analytical problems

Interests

- books, snooker, e-sports, cycling trips, physics.

Disclaimer

I hereby authorize you to process my personal data included in my job application for the needs of the recruitment process in accordance with the Personal Data Protection Act dated 29.08.1997 (uniform text: Journal of Laws of the Republic of Poland 2002 No 101, item 926 with further amendments)