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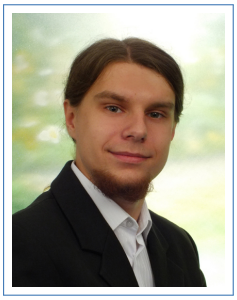

Maciej P. Kopeć

Education

2014–2015 **Master of Science**, ***AGH-UST***, **Cracow**.
Major: **Technical Physics** at Faculty of Physics and Applied Computer Science

2010–2014 **Bachelor of Science**, ***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*
- Electrical circuit design.
- Beam instrumentation diagnostics and assembly

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.

August 2011 – January 2012 **Afresh Media sp. z o. o.** *Web programmer*
- Creating, modifying and designing web solutions for company's clients.

2010 – 2012 **AGH Students Council** *Web programmer*
- Creating, maintenance and modifying various websites and web applications.

Projects and designs

December 2014 – January 2015 **Embedded player for `*.wav` files** *University project*
- LPC1768 based embedded system designed to play WAVE files using internal 10-bit DAC, DMA controller and SD card.
- *Work in progress* — design phase

October 2014 – January 2015 **Free fall measurement device** *University project*
- 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.
- *Work in progress* — first software tests (hardware tested successfully)

July 2014 – June 2015 **Control interface for SALT ASIC for LHCb detector tracker upgrade** *Master thesis*

- Hardware I^2C interface implementation in Verilog.
- *Work in progress* — verification phase

June 2014 – September 2014 **Analog filter measurement automation software** *University project*

- 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 – January 2014 **PS/2 driver in Verilog** *University project*

- Design, implementation, synthesis and simulation of simple PS/2 driver in Verilog.

December 2013 **Binary signed multiplication design** *University project*

- Design, implementation, synthesis and simulation of binary multiplication using I variant of Booth algorithm.

October 2013 – December 2013 **Digital to analog converter** *University project*

- 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 – October 2013 **Demo application for colour touchscreen working in embedded system** *Bachelor thesis*

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

June 2013 – September 2013 **Operation amplifier** *University project*

- Miller's configuration operation amplifier design with over 20 000 open-loop gain and about 1 MHz bandwidth.

2013 – 2014 **Other electronics and embedded systems related projects**

Languages

English **Fluent (FCE)**

Russian **Basic – currently learning**

Other skills

Programming languages **C, C++ (basic), Python, Verilog, SQL, PHP, MATLAB (basic), Simulink(basic)**

Design software **KiCad (currently learning), EAGLE 6 (schematic and layout), DxDesigner and Expedition PCB (more than basic), Cadence (Schematic, ADE, Layout, digital simulation), LTspice IV, Xilinx ISE**

Other software and technologies **Linux, LaTeX, 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)