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Dear Sir or Madam,

In response to your job opening, I would like to place my candidature.

I am a young, eager to learn student in my fifth year at the AGH-UST doing a degree in technical physics. Electronics and embedded systems are my passion, which is the main reason why, I think, I would be a perfect candidate for the posted opening.

During my internship at Woodward Poland, I was responsible for many electronics-related tasks. I prepared setups, performed tests and then analyzed the results. I also designed electrical circuits and a few PCBs. Throughout my work, in many areas, I was an independent engineer and solved problems myself without any guidance. What is more, there were some ideas of mine, which were accepted and used more generally, in bigger projects.

The above is not my only experience with designing electronics on the schematic level. I made numerous hobbyistic projects, which I designed from schematic to a PCB. Some of the projects were made on a prototype board, some on a universal PCB and some were produced by a PCB manufacturer. During courses at the university, I also designed and simulated integrated circuits, such as an operation amplifier or a Digital-to-Analog Converter. Both projects achieved maximum grades. What is more, the DAC was designed with 2-bit better resolution (compared to the rest of the students group) and the same acceptable error rates, which made the project even more challenging. Both ICs were layouted and tested afterwards as well.

While I am not afraid of analog electronics, it is not my strongest side and I realize there is still much to learn. I am eager to do that and I really find analog circuit designing pleasant. All in all, my strongest side is the digital electronics. The most fascinating topics for me in this category are data transmission protocols. Their hardware and software implementation is the thing, I enjoy the most. My recent work in this area is my master's thesis, for which I am developing a hardware I²C protocol implementation. It will be a part of a readout electronics chip for CERN, Geneva. Most of my work in digital electronics is based on Verilog HDL. For my master's thesis I will also get to know System Verilog. What is more I prepared several projects on Xilinx Spartan-3AN Starter Kit during one of the courses at the university.

Designing electronics is not my only asset. I have plenty of experience in programming. Earlier I was working in web-development, and recently embedded systems, especially microcontrollers. I used ATmega and ARM cores and developed a few applications. The biggest and the most complicated was my bachelor's thesis. In all microcontroller-based projects I used ANSI C. I find bringing a tiny computer to life very exciting and enjoyable. This is definitely one of my favorite activities and I tend to have a lot of ideas for microcontroller applications.

To sum up, there are areas in electronics, which I like a lot, some of the design process I like a little less, but there is no better feeling in the world, than looking at a finished, working product, which was developed with hard work. Nothing makes one more proud than seeing this.

Yours faithfully,
Maciej Kopeć