# DRAGANA MILOJEVIĆ

Junior developer

06.03.1995.

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## Objective:

Hard working electronics student constantly seeking opportunities to learn and acquire practical knowledge. Team player, with a background in C programming, interested in VLSI design (took extra subject to gain more experience in VLSI design), Embedded systems, low level programming, Digital systems.

## Education:

**School of Electrical Engineering, University of Belgrade, Serbia (Oct 2013 – now)**

Undergraduate studies, Department of Electronics. Course lasts 4 years. The title is "Graduate engineer - bachelor". Degree expected in January 2019

**High school "Gimnazija" in Zrenjanin, Serbia (2009-2013)**

Graduated with GPA 5.00 out of 5.00. Awarded for the best student of the generation. Awarded prize "Vuk Karadzic" by the Ministry of Education for highest possible average grade during high school ("Vukova diploma"). Took part in numerous competitions in the field of physics and informatics (precisely, programming) and chemistry, up to the national level.

**Petnica Science Center (2010-2011)**

Attended several courses at the Applied physics and electronics seminar. Had lectures on different topics from basics of electronics, digital signal processing, clusters and worked on design of digital anemometer (details below).

**Regional center for talents (2009-2013)**

Wrote and presented several scientific research papers in the field of physics. Some of those papers were awarded at the national level reviews (details below). Attended several lectures in field of a hydrogen energy conservation, elementary particles and amorphous metal alloys.

## Work experience

**[Internship] Institute „Mihajlo Pupin", Automation and Control Company, Department for hardware development (August 2014.)**

Development panel of digital outputs for PLC. Revision of printed circuit boards was made. CPLD was changed (voltage was changed, from 5V to 3.3V), his task was to make Schematic and Layout. Learned basics of VHDL.

## Extracurricular activities (self-directedlearning)

**[Petnica Science Center] Digital anemometer (Summer 2012 )**

The fact that a diode has a negative temperature coefficient was used to make precise anemometer. Diode voltage was brought to microcontroller, and the result was over RS232 communication read on computer. Correlation between frequency of computer cooler and diode voltage was found.

**[Regional center for talents] Correlation of relative deformation and change in electrical resistance of amorphous alloy $Co_{84}Fe_{5,3}Si_{8,5}B_{2,2}$ (Spring 2011)**

The dependence of changing electrical resistance from relative deformation have been mesured for amorphous stripe. It is shown this amorphous alloy has small coefficient of sensitivity and it is not useful as force sensor. Awarded for the creativity and originality of work on the State competition of young talents.

**[Regional center for talents] The influence of structural changes on magnetic features amorphous alloy $Fe_{81}B_{13}Si_4C_2$ (Spring 2010)**

Temperature dependence of the relative magnetic susceptibility change was investigated by modified Faraday method. Structural changes have been investigated by measuring thermo electromotive force with thermo-couple of two pieces of the same alloy. It is shown that process of crystallization amorphous alloy is happening in two parts.

## Assignments related to attended courses

**[Design of VLSI systems] Design of Microprocessor (scheduled for completion in Jan 2018)**

Complete design of microprocessor with small set of instructions, written in VHDL, using Xilinx ISE as development environment, and Spartan 3E environment for implementation. Microprocessor communicates with SRAM memory, digital keyboard and display. On their demand they will implement design, while others will only synthesize model. Homework is done in pairs.

**[Computer Architecture and Organization] Simple microprocessor (Summer 2016)**

Complete logic design of a microprocessor with one bus, RTL view (architecture similar to Intel 8086 microprocessor). Paper includes vast and detailed explanation of system functioning. Homework is done by teams consisting of four students, this giving the opportunity to practice team work, essential for future work in professional environment.

**[Introduction to integrated circuit design] Design of ACS unit of Viterbi decoder (Spring 2017)**

Layout for ACS unit (Add-Compare-Select unit within Viterbi Decoder) was designed in 250nm technology. Full custom hierarchical design was made using MAGIC VLSI Layout Tool. Simulation and functional verification were performed in Spice simulator and IRSIM switch level simulator. Design fulfilled all requirements related to layout area optimization and consumption constraints. Homework done in pairs.

## Skills

**Personal**. Diligent, communicative, punctual, cooperative, positive, organized, ambitious, responsible, persistent, good in team work, honest, quickly adaptive, open-minded.

**Programming languages**. (using now or have been using earlier): C, Pascal, 8086 Assembler, Vhdl, Javascript, Html, Php, Css, Wordpress, Java.

**Operating systems**: MS Windows, Ubuntu.

**Work on abovementioned and/or student projects included working with**: MS Visual Studio, Quartus, NetBeans, Cadence, OrCAD Layout, OrCAD Pspice, OrCad Schematic, Free Pascal , Matlab, MS Office, Linux.

**Languages**. Native Serbian, good English (fluent in conversation, reading and writing), basic German (basic conversation, reading and writing), basic Spanish (basic conversation, reading and writing).

## Interests and hobbies:

Karate black belt and 3rd place at the international competition 2012, swimming, economics.

Students associations (Member of the "EESTEC" group (Electrical Engineering Students' European Association), department in Belgrade. Member of the organization board „JobFair10", part of PR team).

Music and clarinet playing.

Love positive people and positive energy.

Technology is my inspiration.

**Other information available upon request!**