

Aleksa Marušić

Software Engineering Student

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Work Experience

- 2016 – ■ **Student Teaching Assistant.** *University of Belgrade.* My responsibilities includes preparing homework assignments and helping organizing laboratory exercises as well as some aspects of student assessment on various subjects.
- 2017 – ■ **Chief of Machine Learning.** *LazyBrain.* As a member of Executive board, I have part in making every valuable decision of the LazyBrain organization. As a Chief of Machine Learning Department I am leading ML team which aim is to improve ML awareness and educate people about in this area as well as to use ML by developing open source solutions for real life problems.
- 2017 – 2017 ■ **Software Engineering Intern.** *Teodesk.* I have been working on building an AI chatbot for Teodesk application by using Natural Language Understanding.

Education

- 2015 – ■ **B.Eng. in Software Engineering, University of Belgrade, Serbia.**
GPA: 9.33 / 10.0
Coursework: Calculus, Programming 1 & 2, Algorithms and Data Structures 1 & 2, Computer Architecture, Databases 1, OOP, Operating Systems 1 & 2, Neural Networks, AI

Projects & Publications

Projects

- 2018 ■ **Realization of complete computer system - processor, GPU and keyboard interface on Cyclone III FPGA chip (Quartus 13.1)** The project implements communication of processor and various controllers across the bus. Also, project includes realization of simple game (known as Snakes) in assembly for the implemented processor. This was a team project (team of 5).
- **Inside Out (CodeIgniter, ORM, HTML, CSS, JavaScript, JQuery, Ajax, MySQL, Bootstrap)** The ultimate web application for improving company's time and resource management. Easy distribution of employees into teams, giving them tasks and tracking teams' progress. This was a team project (team of 4).
- 2017 ■ **Nim Game (C#)** Implementation of a Nim game, including 3 levels of computer player (bots) with minimax and alpha-beta pruning algorithms. Also, implementing a graphical part (UI) of application.
- **Thread Management Subsystem (C++, 8086 assembly)** Implementation of a kernel subsystem for preemptive multi-threading for Intel 8086 CPU with time sharing on a single CPU that supports context switching, event handling and implementation of semaphores.
- 2016 ■ **Program for encryption and decryption of electronic mail (C lang.)** Implementation of Blowfish encryption (and decryption) algorithm and working on graphical part (UI) of the application.
- 2015 ■ **License Plate Detection (MATLAB)** Implementation of algorithms for License Plate Extraction, Character Segmentation and Character Recognition.

Publications

- 2012 ■ **"Women More Educated Not More Equal"** Paper published in the "Women Empowerment – The Road Ahead" journal within the "Community Development & Leadership Summit 2012" in New Delhi, India

Skills

Languages	■ Serbian - native. English - advanced. Chinese and German - beginner.
Programming	■ C, C++, C#, Python, Java, Assembler, PHP, MATLAB, SQL, HTML, CSS, JavaScript
Technologies	■ CodeIgniter, Laravel, LabView, JQuery, Ajax, Bootstrap, MySQL, JMS, JDBC, JPA
Operating sys.	■ MS Windows, Linux

Awards and Achievements

- 2018 ■ **Second place on EESTech Challenge Final Round hackathon.** Competition is organized by EESTEC LC Novi Sad. The proposed problem for actually taken from kaggle.com website - Instacart Market Basket Analysis competition. The data set for this competition was a relational set of files describing customers' orders over time. The goal of the competition was to predict which products will be in a user's next order. The data set contained over 3 million grocery orders.
- **First place on EESTech Challenge Local Round hackathon.** Competition is organized by EESTEC LC Belgrade. The task was to implement web crawler and web scraper and, using them, download data from over 20 000 web pages and analyze it. We were the only team that did the given task completely.
- 2017 ■ **First place on EESTech Challenge Local Round hackathon.** Competition is organized by EESTEC LC Belgrade. The proposed problem was to implement an algorithm for face recognition and then detection on a very specific training data set.
- 2016 ■ **First place on CodeBeyond hackathon.** Winning the CodeBeyond hackathon organized by BEST Belgrade. The theme was e-banking and the task was to, using Open Bank Project API, make a banking application for customers. I was part of a team which developed a fully functional desktop application (in C#) with database integration and communication with OBP API. We also implemented a simple financial assistant.

Volunteering

- 2017 ■ **Treasurer.** *EESTEC LC Belgrade.* Together with 6 more people, I have led the EESTEC LC Belgrade organization. Also, I was responsible for planning budget for every project in organization, paying bills and controlling money flow as well as leading the grants team.
- 2014 ■ **Technical support** *Vinča Institute of Nuclear Sciences.* I was part of the technical support team on Scientific International Conference: LCWS14 (the 16th International Workshop on Future Linear Colliders) - the biggest conference on world of its kind.

Additional Education

- 2016 ■ Attending "Bytes of Banking" - advanced skills workshop organized by Halcom and EESTEC LC Ljubljana. Besides lectures, there was a competition where we had to make an application for BTC City in Ljubljana that connects gamification and e-banking
- 2015 ■ Attending "MG Computer Science Week" seminar
- Attending advanced seminar of Applied Physics and Electronics at Petnica Science Center
- 2012 ■ Attending Systempro - School of Computing from 2008 to 2012
- Chinese language course at Communication University of China (40 days during summer break)

Extracurricular Activities

- Playing Clarinet and Guitar
- Have been practicing Water-polo, Rowing, Table Tennis, Basketball and Swimming
- Love travelling, reading books, watching movies and TV shows
- Driver's license (category B)