Aleksa Marusic

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Employment

Student Teaching Assistant

University of Belgrade

Oct 2016 – Present

My responsibilities include preparing homework assignments and helping organizing laboratory exercises as well as some aspects of student assessment on various subjects.

Treasurer

EESTEC LC Belgrade

Jan 2017 - Jan 2018

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.

Software Engineer, Intern

Teodesk

Jun 2017 - Sep 2017

I have been working on building an AI chatbot for Teodesk application by using Natural Language Understanding.

Education

Belgrade, Serbia

University of Belgrade

Sep 2015 – July 2020

- B.Eng. in Software Engineering. GPA: 9.3 / 10.0. (2015 2019)
- M.Eng in Software Engineering (2019 2020)
- Coursework: Calculus; Computer Architecture; Algorithms; Operating Systems; Databases; OOP; AI; ANN;

Project and Publications

- Realization of complete computer system processor, GPU and keyboard interface on Cyclone III FPGA chip (Quartus 13.1)(2018) 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)(2018) The ultimate web application for improving company's time and resource management. Easy distribution of employees into teams, giving them tasks and tracking team's progress. This was a team project (team of 4).
- Nim game (C#)(2018) Implementation of a variation of a Nim game, including 3 levels of computer player (bots) with minimax and alpha-beta pruning algorithms. Also, implementing UI of the application.
- Thread management subsystem (C++, 8086 assembly)(2017) 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.
- **Program for encryption and decryption of electronic mail (C lang.)**(2016) Implementation of Diffie-Hellman key exchange, RSA, SHA256 and Blowfish algorithms and combining them into an application for encryption / decryption of emails. Also, implementing UI of the application. This was a team project (team of 3).
- License plate detection (MATLAB)(2015) Implementation of algorithms for License Plate Extraction, Character Segmentation and Character Recognition.
- Women More Educated Not More Equal(2012) Paper published in the "Women Empowerment The Road Ahead" journal within the "Community Development & Leadership Summit 2012" in New Delhi, India.

Additional Experience and Awards

- Second place on EESTech Challenge Final Round 2018 hackathon. Theme Data Science.
- First place on EESTech Challenge Local Round 2018 hackathon. Theme Data Science.
- First place on EESTech Challenge Local Round 2017 hackathon. Theme Machine Learning.
- First place on CodeBeyond hackathon (2016). Theme online banking.

Languages and Technologies

- C/C++, C#, Python, Java, Pascal, Assembly, PHP, MATLAB, SQL, HTML, CSS, JavaScript.
- Keras, TensorFLow, CodeIgniter, Laravel, JQuery, Ajax, Bootstrap, MySQL, JMS, JDBC, JPA, Latex, Git.
- NetBeans, Visual Studio, PhpStorm, StarUML, MySQL Workbench, PhpMyAdmin, SQL SMS, LabView.