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# JELENA CVETIC

## Software Engineering Student

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### PROFESSIONAL EXPERIENCE

#### Software Engineering Intern at Cisco

June 2023 - Present

Internship at Cisco's Infrastructure Team, specializing in optimizing the build system. Responsibilities encompassed extensive work with Makefiles, utilization of SWIG, and optimization of C/C++ code. Developed proficiency in software development, build process enhancement, and collaborative teamwork within the dynamic environment.

#### Student Teaching Assistant

October 2022 - Present

Contributed as a Teaching Assistant, responsible for the evaluation of laboratory exercises in diverse courses, including Algorithms and Data Structures, Computer Architecture and Organization, Object-Oriented Programming and others.

#### Student Mentor at Scientific and Engineering Center PFE

June 2020 - Present

Actively participated as a student mentor with a volunteering organization that offers free camps to high school students. Engaged in software engineering courses and provided mentorship for projects.

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### RELEVANT PROJECTS

#### Preemptive multithreaded kernel for RISC-V CPU

Designed a C++ university project for a basic operating system, compliant with the RISC V processor architecture, enabling multithreading and time-sharing capabilities. Project includes functionalities such as thread management, semaphore implementation, a customized memory allocator, and thorough interrupt handling for both external (keyboard) and internal (timer) events.

#### Shopping application

Project involved implementing web services and orchestrating containerized components for a multi-user system, including facilitating order payments through the Ethereum Blockchain platform. It was developed using Python, Flask, SQLAlchemy and Docker.

#### Olympic games data analysis application

Developed an application for the examination and presentation of Olympic Games data, with data processing coded in C++. Additionally, Java Native Interface (JNI) was utilized to enable seamless data transfer from C++ to Java, while the graphical user interface (GUI) was implemented using Java.

#### Wine encyclopedia

Developed a web application for small wineries, using client-server architecture. The server-side was developed using Django, while HTML and JS were utilized for the client-side interface.

## Client-Server communication project

Created a system comprising client and server applications, along with a database subsystem, utilizing REST API to manage request and response handling. Employed JMS for messaging purposes and established connectivity to MySQL using JDBC for database interaction

## Walking optimization of bipedal model using Reinforcement learning

Implemented a walking optimization project for a bipedal model using the machine learning method of Reinforcement Learning. The simulation was implemented in Python, with physics and body dynamics simulated using the Box2D Python library.

## 16bit CPU

Developed the organization and architecture of a 16-bit CPU within a university simulator, employing the creation of instructions and the formulation of algorithms using these instructions.

## EDUCATION

### 2020 - 2024 | School of Electrical Engineering University of Belgrade

Bachelor of Computer Science - Software Engineering

Cumulative GPA: 9.43/10.00

### 2016 - 2020 | First Grammar School of Kragujevac

Science and mathematics educational track

Cumulative GPA: 5.0/5.0

## CORE COMPETENCIES

- |                                 |                           |
|---------------------------------|---------------------------|
| ✓ C/C++                         | ✓ JS                      |
| ✓ Flask                         | ✓ HTML                    |
| ✓ Python                        | ✓ Make                    |
| ✓ Java                          | ✓ SQL                     |
| ✓ Code structure & architecture | ✓ Test driven development |
| ✓ Data structures               | ✓ Design patterns         |
| ✓ Algorithms                    | ✓ UNIX                    |
| ✓ Docker                        | ✓ Django                  |