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Education

University of Belgrade, School of Electrical Engineering | Software Engineering(2018-)

Skills & Abilities

Programming Languages

- C, C++
- Java
- Python
- HTML, CSS
- JavaScript
- Php

Other Skills

- Linux shell
- SQL
- Operating systems
- IP communication
- Algorithms and data structures

Programming Experience & Larger Projects

Operating System – Memory Allocator (C, 2021)

- Code written in C for Windows OS. Project is thread safe and it uses Win32 API for interprocess synchronization. Project has 2 allocators: buddy and slab. Slab allocator uses buddy allocator, so it has better performances. Buddy allocator isn't available for user's use.

Smart Info System (Java, 2021)

- Project is set of 5 applications: 1 WEB application, 1 GUI application and 3 background applications. Applications communicate with each other using Java Message Service and Glassfish server. Project uses MySql database for data storage. Database is totally protected and is only accessible through WEB application which is implemented using REST API. Client interacts with GUI application whose response is sent to WEB application. WEB application processes request and sends response to one of background applications whose main purpose is to display the answer. With application, you can play YouTube songs, set alarm which rings on time. Application also provides your personal planner. Planner uses location and it calculates time between obligations so you can be always on time.

Router Information Scanner (Java, 2021)

- Project is Java GUI application whose goal is to monitor routers and display some basic information about router. Application finds all interfaces and for each interface displays IP address, MAC address, name, status, speed, etc… Application uses SNMP API.

Custom Multithreading Kernel for Operating System (C++, 2020)

- Custom multithreading operating system kernel written in C++. Kernel contains thread scheduling, time sharing, interrupt triggered events, etc... It also contains some advanced features such as Semaphores and System Signals for communication between threads.

Photo Editor (C++ & Java GUI, 2020)

- Layer based photo editor with many functionalities coded in Java, where you can set layer transparency. Project can be saved and loaded – I implemented this functionality with XML. GUI is created in Java while image manipulation is done in C++ (There is also only C++ version without GUI).

FPGA Project/Game (Hardware based) (2020)

- Project/game created in Quartus using only hardware components for programming (AND gates, OR gates, Coders, Multiplexers, etc…). Project is loaded into Cyclone III device and communicates with display using FPGA.

Pathfinding Visualizer (Java, 2020)

- Implementation of Dijkstra and A* algorithms where you can see step by step how do they work. It was made using Java Swing.

Small Java Games (Java, 2020)

- 3 Java games done as homework assignment using Java AWT and Threads.

Graph Project/Game (C, 2019)

- Bloxorz video game made in C with graphs. The game is played from command line. You can load any map through file and you can ask if there is solution for that map. If solution exists the program shows minimum number of steps to finish map.