Andrija Cicović

Software Engineering Student

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Experience

- **Microsoft Development Center Serbia** — Belgrade, Serbia
  Software Engineering Intern — Oct 2017 – Jan 2018
  - **Internship project**: As a part of the SQL Team, I was working on the distributed database systems, more precisely on the SQL Server technology inside SQL Azure Database. The goal of my internship project was to implement the gateway throttling capability by implementing the necessary mechanisms inside the SQL Server Engine and SQL Azure Database.
- **School of Electrical Engineering, University of Belgrade** — Belgrade, Serbia
  Student Teaching Assistant — Oct 2016 – Present
  - **Responsibilities**: Grading homework assignments and assisting in computer laboratory exercises on several computer hardware or software related courses.

Education

- **School of Electrical Engineering, University of Belgrade** — Belgrade, Serbia
  Bachelor of Computer Software Engineering; GPA: 9.9/10.00 — Oct 2015 – Present
  - **Courses**: Throughout my higher education I have achieved knowledge of various CS and SE disciplines, ranging from the theoretical knowledge of computer hardware and architecture, concepts and design of operating systems, data structures, algorithms, computer networks, and relational databases, to the practical skills of structured and object-oriented programming and software modeling. Also, I have a solid background in probability, statistics, and discrete mathematics.

Relevant projects

- **Virtual Memory Management System in C++ (Nov 2017 – Present)**: Kernel virtual memory management subsystem simulation encapsulates all kernel objects and functionality needed to successfully maintain the memory context of a process, it's coexistence with other processes, creation and destruction of (shared) logical segments, virtual to physical address mappings, available frames, and blocks on swap partition. In order to be functional, the system also implements a simulation of the hardware's role in virtual address mappings.
- **Thread Management System in C++ and 8086 asm (May 2017 – Jun 2017)**: An implementation of a small, but completely functional thread management subsystem for a preemptive, time sharing operating system kernel. The solution implements and allows concurrent execution of multiple user-written threads on an Intel 8086 compatible CPU. The system provides a support for simple IPC using signal sending/handling, and semaphore and event objects that can be used as synchronization primitives.
- **Computer architecture implementation for a CPU simulator (Dec 2016)**: A realisation of a processor's control unit in a form of microprogram, stored in micromemory, that implements an instruction set for a predefined computer organization of a given CPU simulator, accompanied by several machine code programs used for testing the functionality of the solution.
- **Console application for encryption/decryption in C (May 2016)**: The project represents a team effort to build a console GUI application, using ncurses C library, that implements several encryption (Blowfish, Diffie-Hellman key exchange, RSA) and hashing (SHA256) algorithms for the encryption of text file formats. My role in the project was to design and write a GUI with a simple embedded file viewer, and to implement the SHA256 hash function.

Programming Skills

- **Languages**: C, C++, Java, Bash, Python, Pascal, SQL, C#
- **Tools**: QtCreator IDE, MS Visual Studio IDE, Code::Blocks IDE, Git, Vim, gcc, gdb, make, bash, LaTeX
- **Operating systems**: Linux, Microsoft Windows

Languages

- **Serbian**: Native language
- **English**: Full professional proficiency