

Ognjen Šćekić

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Education

- 2003 present Faculty of Electrical Engineering, Department of Computer Science and Engineering, University of Belgrade, Serbia. Five-year studies. Current GPA = 9.40 (max 10). The best student of the 2002 class.
- 2002 2003 Faculty of Electrical Engineering, University of Montenegro, Podgorica, Montenegro. Student with the highest GPA at the time.
- 1998 2002 Gymnasium "Ivan Goran Kovačić" in Herceg Novi, Montenegro. GPA = 5.0 (max 5). Awarded the prize for the best student of the generation, and the prize "Luča" for the maximum GPA during the high school. Participated in competitions in Physics and English on the national level. Also participated in a program for young talents in informatics at the Research Center in Petnica, Serbia.
- 1991 1998 Various elementary schools in Sarajevo, Belgrade and Herceg Novi.

Projects

2006/01-06 Six months research for Sun Microsystems aimed at finding new ways of representing and storing data from patent records that would allow more efficient search for related patents (under supervision of Dr Charles Milligan from Sun Labs). The project's outcome was a hybrid approach featuring both statistical and semantic analysis tools to capture information at a higher level and store it using RDF/OWL. Parts of it were implemented in Java, and partially relied upon Natural Language Processing tools developed at Stanford University.

2003-2006 Various projects as part of the studies, including:

- An FPGA synthesizable VHDL model for a simple UART device capable of transmitting/receiving at multiple speeds, having a variable sized receiver buffer, with a Wishbone compatible interface.
- Internet portal for publishing scientific papers, that keeps track of the number of citations, supports automated detection of referenced papers, multiple user-level support, and advanced file download and upload control. The project was done by a team of four, following parts of Rational Unified Process. (PHP & MySQL.)
- A complete MicroJava Extended Compiler (using Java, JFlex and BYACC/J)

- Schemes, assembler code and a simulator for an imaginary "Submarine Depth Detector". The system consisted of an 8086 microprocessor and standard peripherals 8251, 8254, 8259. The same system was also implemented using an 8052 microcontroller, programmed with KeilC. A TASM MS-DOS program was written to simulate the entire system.
- A general-purpose macroprocessor allowing nested macrodefinitions. (Java)
- A simple Java AI game, where the computer is supposed to guide the explorer through a 4x4 maze set by the user. (Java)
- A database system for a healthcare department (MS SQL Server, JDBC)
- Simple performance analysis simulators for processors (with waiting queues), memories and hard-drives (C#).
- Simulators for digital communication channels, to simulate the influence of various modulation techniques and disturbances on the transmission quality (Java, Matlab).

Publications

- "An Overview of OWL and its Role in Semantic Web Architecture", in Proc. of XII International Conference YUINFO-06, Kopaonik, Serbia, March 2006.
- "A Proposed Hybrid Approach for Patent Modeling", in Proc. of IPSI Conf. 2006.
- "Comparative FPGA Analysis", December 2005. a survey of exsisting FPGA products, used as part of the teaching material for the "VLSI Systems" course at my faculty.

Skills & Interests

Professional skills: Java, C#, C/C++, PHP, SQL, VHDL, Assembler

Professional interests:

Parallel and concurrent programming, Multiprocessor and distributed systems, Object-oriented software, Semantic Web

Languages:

English	(fluent)
Italian	(fluent)
Spanish	(basic comprehension level)
Serbian/Croatian	(native)

Personality:

Hard-working, responsible, dedicated, precise, friendly, enjoy teamwork (and team management), honest, quick-learner (member of MENSA).

Additional interests:

Biology/Genetics, History, Foreign Languages, Biking, Skiing, Swimming.