

# Boris Perović

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## Key strengths:

EPFL Computer Science Master graduate

Broad knowledge in software and computer systems

International experience – Serbia, Switzerland, USA

Strong analytical, organizational and leadership skills

## OBJECTIVE

I want to take part in cutting-edge engineering projects, apply my computer science knowledge to difficult problems that matter at a global scale and become someone who makes a change towards a more connected, better world.

## EDUCATION

Oct 2015–Apr 2016	<b>Stanford University</b>	<b>Stanford, California, USA</b>
	Visiting Student Researcher in Computer Science. MSc thesis research in Pervasive Parallelism Laboratory, under the supervision of Prof. Olukotun and Prof. Odersky	
Sep 2013–Apr 2016	<b>Swiss Federal Institute of Technology Lausanne (EPFL)</b>	<b>Lausanne, Switzerland</b>
	MSc in Computer Science, Internet Computing Specialization, core GPA 5.89 / 6 (total 5.42)	
Sep 2009–Sep 2013	<b>University of Belgrade, School of Electrical Engineering (ETF)</b>	<b>Belgrade, Serbia</b>
	BSc in Electrical Engineering and Computing, GPA 9.58 / 10	

## EXPERIENCE

Jun–Sep 2015	<b>CERN, Software Engineering Intern (Summer Student)</b>	<b>Geneva, Switzerland</b>
	Worked on ROOT Data Analysis Framework used by all experiments at CERN. Implemented modular outputting of types using advanced C++ templating and code generation. Features I developed are used by thousands of physicists and scientists every day. (C++, LLVM, Clang)	
Aug 2014–Feb 2015	<b>Net Link Solutions, Software Engineering Intern</b>	<b>Belgrade, Serbia</b>
	Re-implemented <a href="#">easyUML NetBeans UML plugin</a> , pushing it from ~400 to more than 45,000 downloads (code <a href="#">here</a> ). Contributed to <a href="#">Neuroph Neural Network Framework</a> . (Java, NetBeans)	
Mar–May 2012	<b>Serbian Object Laboratories, Software Engineering Intern</b>	<b>Belgrade, Serbia</b>
	Implemented code generation for model-driven development framework SOloist. (Java, XML)	

## Academic

Feb–Jun 2014	<b>Swiss Federal Institute of Technology Lausanne (EPFL)</b>	<b>Lausanne, Switzerland</b>
	Teaching Assistant in the course Programming 2 (OOP, intermediate C++, graphics)	
Feb 2012–Sep 2013	<b>University of Belgrade, School of Electrical Engineering (ETF)</b>	<b>Belgrade, Serbia</b>
	Teaching Assistant in courses Operating Systems 1 and 2 (processes & memory management, scheduling algorithms, synchronization and IPC, I/O, file systems, OS system architectures)	

## Selected projects

**Master thesis – Pervasive Parallelism Laboratory with Professor Kunle Olukotun and Professor Martin Odersky**

Delite – a compiler framework and runtime for parallel, high-performance embedded DSLs. Worked on language virtualization and hiding of the deep embedding from users through the use of Scala macros (Scala)

**Semester project – Distributed Information Systems Laboratory with Professor Karl Aberer**

Memo-it – a battery aware sensor library and Android mobile application identifying user's memorable moments. Developed several location-based features and the core recommender system (Java, Android SDK)

**Compiler for MicroJava** – lexical, syntactical, semantic analysis and bytecode generation (JFlex, CUP, Java)

**Multiversion Concurrency Control library** with query predicate locking (Java)

**Intelligent agent systems** (reactive, central-coordinated, distributed) for pickup and delivery problem (Java)

AI for Reversi game – Minimax algorithm with Alpha-Beta pruning (Java)

CUDA Fast Fourier Transformation and performance evaluation. 85x speedup compared to serial version (C++, CUDA)

Hadoop analytics application – efficient detection of triangular connections in social network graphs (Java, Hadoop)

Multithreading kernel with timesharing. Threads, context switching, semaphores, events (C++)

ARM architecture processor design with 5-stage pipeline and caches (FPGA, VHDL)

## FIELDS OF INTEREST

Large-scale computer systems

Operating systems and programming languages

Internet computing and big data

AI and machine learning

Space technologies and novel transportation methods

Project management and entrepreneurship

## COMPUTER SKILLS

Operating systems Windows, macOS, Linux

Languages Java, C, C++, Scala, C#, VHDL, x86 and ARM assembly

Technologies CUDA, Hadoop, MPI, Pthreads, NetBeans Platform, Android SDK

Web HTML, CSS, JavaScript, SQL, JSP, basic PHP

Tools Git, SVN, sbt

## ACTIVITIES AND ACKNOWLEDGEMENTS

- Aberer K., [et al, including Perovic, B.] (2014) Memo-it: Don't write your diary, sense it, *Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication*, pg. 203-206
- **Competitions:**
  - Chosen as one of the 20 national "Vip students" 2012/2013 by Vip mobile Serbia, among the senior students of the best technology, economy and management faculties in Serbia
  - Member of the **winning team** at FONIS / Microsoft Start conference 24-hour hackathon 2012
  - Participated in numerous coding competitions in algorithms, game development and AI (2011 - 2016)
- **Conferences and seminars:** WebFest.ME 2012, 2011, EESTEC Soft Skills Academy 2011, Microsoft Sinergija 2010
- Feb 2010 – Sep 2013 - Member of ETF Students Alliance. Computer Engineering class delegate. Organizer of science competitions at international conference of students of electrical engineering – Elektrijska 2011, 2012.
- Attended programs at Petnica Science Center – Electronics 1/2 (2006/07), Physics 2 (2008).
- **Volunteered** at international work camps with Young researchers of Serbia:
  - 2009, Iceland – Veraldarvinir, eco, working with children and organizing an exhibition.
  - 2008, France – Unarec, teen, renovation of Ecomusée d'Alsace.
- **Scholarships:**
  - Fund for Young Talents Dositeja, Ministry of Youth and Sports, RS (2012, 2013, 2014, 2015)
  - Ministry of Edu., Sci. and Tech. Development, RS (2006, 2007, 2008, 2010, 2011, 2012)
  - City of Belgrade, RS (2007, 2008, 2012)

## LANGUAGES

Serbian Native

English Fluent

French Intermediate

## OTHER

Sport Won multiple medals at national and international athletics competitions (2007, 2006, 2005)

Hobbies Composing, playing piano, basketball, running, skiing, hfree climbing