

# 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 apply my knowledge to difficult problems that matter at a global scale, take part in dynamic, team-oriented research projects, and become someone who makes a change towards a more connected, better world.

## EDUCATION

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

## EXPERIENCE

Jun–Sep 2015	CERN, Software Engineering Intern (Summer Student)	Geneva, Switzerland
	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	Net Link Solutions, Software Engineering Intern	Belgrade, Serbia
	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	Serbian Object Laboratories, Software Engineering Intern	Belgrade, Serbia
	Implemented code generation for model-driven development framework SOloist. (Java, XML)	

## Academic

Feb–Jun 2014	Swiss Federal Institute of Technology Lausanne (EPFL)	Lausanne, Switzerland
	Teaching Assistant in the course Programming 2 (OOP, intermediate C++, graphics)	
Feb 2012–Sep 2013	University of Belgrade, School of Electrical Engineering (ETF)	Belgrade, Serbia
	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

OS 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 Upper-intermediate

## OTHER

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

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