

# Boris Perović

+1 650 382 7182

Stanford, CA 94305

<http://perovic.github.io/>

[perovic@stanford.edu](mailto:perovic@stanford.edu)

Skype: [boris.perovic](#)

## Key strengths:

EPFL Computer Science Master student

Broad knowledge in software and computer systems

Electrical engineering background

Strong analytical, organizational and teamwork 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</b>  |
|                     | Visiting Student Researcher in Computer Science. Conducting MSc thesis research in Pervasive Parallelism Laboratory, under the supervision of Prof. Kunle Olukotun and Prof. Martin Odersky |                              |
| Sep 2013 – Apr 2016 | <b>Swiss Federal Institute of Technology Lausanne (EPFL)</b>  | <b>Lausanne, Switzerland</b> |
|                     | Master in Computer Science, Internet Computing Specialization, core GPA 5.89 out of 6 (all 5.39)  |                              |
| Sep 2009 – Sep 2013 | <b>University of Belgrade, School of Electrical Engineering (ETF)</b>   | <b>Belgrade, Serbia</b>      |
|                     | Bachelor in Electrical Engineering and Computing, GPA 9.58 out of 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 of the experiments in CERN. Implemented modular outputting of types using advanced C++ templating and code generation for Cling, a C++ interpreter developed at CERN. Changes I made were integrated into the master and 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 25,000 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, covering object-oriented programming, intermediate C++ and 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, covering processes and memory management, scheduling algorithms, synchronization and inter-process communication, I/O, file systems, operating 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 domain-specific languages. Working on language virtualization and hiding the deep embedding from users through the use of Scala macros (Scala)

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

Memo-it – worked on 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 | Space technologies and novel transportation methods |
| Web programming                 | Project management and entrepreneurship             |

## COMPUTER SKILLS

|                   |   |
|-------------------|---|
| Operating systems | Windows, OS X, Linux  |
| Languages         | Java, C, C++, Scala, C#, VHDL, x86 and ARM assembly         |
| Technologies      | Hadoop, MPI, CUDA, Pthreads, NetBeans Platform, Android SDK |
| Web               | HTML, CSS, JavaScript, SQL, JSP, basic PHP                  |
| Tools             | Git, SVN, sbt   |

## ACTIVITIES AND ACKNOWLEDGEMENTS

- Sep 2014 – “*Memo-it: Don’t write your diary, sense it*”: coauthor, Proceedings of the 2014 ACM International Joint Conference on Pervasive and Ubiquitous Computing: Adjunct Publication, Pages 203-206
- May 2013 – chosen as one of the 20 national “Vip students” 2012/2013 by Vip mobile Serbia
- **Competitions:**
  - Member of the **winning team** at FONIS Start conference 24-hour Windows 8 hackathon 2012
  - Helvetic Coding Contest 2015, 2014 (algo), Microsoft Coding Competition EPFL 2014 (algo), Nordeus Hackathon 2011 (game dev), MDCS Bubble Bot 2011 (AI)
- **Conferences and seminars:** WebFest.ME 2012 and 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 – Elektrijada 2011 and 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 | Reading – C2, Writing – C2, Conversation – C2 |
| French  | Reading – B2, Writing – A2, Conversation – A2 |

## OTHER

|         |  |
|---------|--|
| Sport   | <ul style="list-style-type: none"> <li>- Won multiple medals at national and international competitions in athletics (2005, 2006, 2007)</li> <li>- Ran relay marathon in Prague as a member of First Belgrade Gymnasium team (2007, 2008)</li> </ul> |
| Hobbies | Composing, playing piano, basketball, skiing and free climbing   |