

# Mario Preishuber master student

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## Education

|                    |   |
|--------------------|---|
| <b>Autumn 2015</b> | <b>Exchange semester</b> , <i>Ecole Polytechnique Federale de Lausanne</i> Switzerland<br>Department of Computer Science  |
| <b>Since 2014</b>  | <b>Master's program</b> in Computer Science, <i>University of Salzburg</i> Austria<br>Department of Computer Science<br>Expected graduation: 2016   |
| <b>2014 2011</b>   | <b>B.Eng.</b> , <i>University of Salzburg</i> Austria<br>Department of Computer Science   |
| <b>Supervisor</b>  | Prof. Christoph Kirsch  |
| <b>2009 2004</b>   | <b>Diploma thesis</b> , ( <i>Technical</i> ) <i>high school</i> Braunau am Inn, Austria<br>My diploma thesis was done in cooperation with Sony (DADC) Austria. The topic of my thesis is developing software for analyzing and filtering large volume of email traffic sent to customer support. I developed the so-called SEER (Sophisticated Embedded Email Responder) for this purpose with another student. |
| <b>Major</b>       | Design and communication technologies   |

## Employment

|                 |   |
|-----------------|---|
| <b>Sep 2011</b> | <b>DVT-Daten-Verarbeitung-Tirol GmbH</b> Austria  |
| <b>May 2010</b> | <i>Software Engineer</i><br>I designed and implemented web applications based on a J2EE architecture and the Apache Struts 2.0 framework. |

## Experience

|                 |  |
|-----------------|--|
| <b>Jan 2015</b> | <b>pseudOS, Advanced Operating Systems Class</b> University of Salzburg, Austria   |
| <b>Oct 2014</b> | <i>Student</i><br>The aim is to develop the major components of an operating system based on Pintos. I have developed a more efficient scheduling algorithm, user-programs, virtual memory, and a UNIX like filesystem. My operating system is called pseudOS. |

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|---------------------------------------|--|
| <b>Aug 2014</b><br><b>Aug 2013</b>    | <b>ACDC4JS, Research Group of Professor Christoph Kirsch</b> University of Salzburg, Austria<br><i>Project Staff</i><br>The project is done in cooperation with Google Munich. The purpose of ACDC4JS is to analyze the efficiency of the garbage collector in JavaScript virtual machines, especially Google's V8. I have worked on research and development of measurement tools. The analyses of heap models, using automated user interactions was also part of my work. |
| <b>June 2013</b><br><b>March 2013</b> | <b>PCCC, Compiler Construction Class</b> University of Salzburg, Austria<br><i>Student</i><br>The goal is to develop a self-compiling compiler. I have developed a full functionally compiler in a non-trivial subset of C together with another student. Target is a DLX-based emulator. My self-compiling compiler is called PCCC and was the best project of the class.   |
| <b>Sep 2012</b><br><b>Aug 2012</b>    | <b>SIGMATEK GmbH &amp; Co KG</b> Austria<br><i>Summer Intern</i><br>I developed a Wireshark plugin for the Nested Varan Frames protocol. I extended an existing NSIS installer. Used programming languages were C and C++.   |
| <b>Aug 2008</b><br><b>July 2008</b>   | <b>ppedv AG</b> Germany<br><i>Summer Intern</i><br>I implemented new features and a new design for the homepage, blog-engine and forum of the company using .Net technologies.   |

## Publications

- [1] M. Aigner et al. "ACDC-JS: Explorative Benchmarking of JavaScript Memory Management". In: *Proc. Dynamic Languages Symposium (DLS)*. DLS '14. ACM, 2014. DOI: 10.1145/2661088.2661089. URL: <http://cs.uni-salzburg.at/~mpreishuber/assets/publications/scal.pdf>. DLS14-ACDCJS.
- [2] A. Haas et al. *Scal: A Benchmarking Suite for Concurrent Data Structures*. 2015. URL: <http://cs.uni-salzburg.at/~mpreishuber/assets/publications/acdc-js.pdf>. NETYS15-Scal.

## Awards

- 2009** **Innovation & Wirtschaft in OÖ** OÖ. Technologie- und Marketinggesellschaft m.b.H  
With the SEER project I won the first price in the category IT with my college. A competition for innovative high school students, supported by the government of Upper Austria.