# Mario Preishuber master student

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### Education

Since Master's program in Computer Science, University of Salzburg Salzburg, Austria

2014 Department of Computer Science

Expected graduation: 2016.

2014 B.Eng. University of Salzburg Salzburg, Austria

2011 Department of Computer Science

**Supervisor** Prof. Christoph Kirsch

2009 Diploma thesis (Technical) high school Braunau am Inn, Austria

2004 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.

Major Design and communication technologies

# **Employment**

Sep 2011 DVT-Daten-Verarbeitung-Tirol GmbH Innsbruck, Tyrol, Austria

May 2010 Software Engineer

I designed and implemented web applications based on a J2EE architecture and the Apache Struts 2.0 framework.

## Experience

Jan 2015 pseudOS, Advanced Operating Systems Class, University of Salzburg

Oct 2014 Salzburg, Salzburg, Austria

Student

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.

Aug 2014 ACDC4JS, Research Group of Professor Christoph Kirsch Salzburg, Salzburg,

Aug 2013 Austria

Project Staff

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 am working on research and development of measurement tools. The analyses of heap models, using automated user interactions is also part of my work.

# June 2013 PCCC, Compiler Construction Class, University of Salzburg Salzburg,

March Salzburg, Austria

**2013** *Student* 

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.

### Sep 2012 SIGMATEK GmbH & Co KG Lamprechtshausen, Salzburg, Austria

Aug 2012 Summer Intern

I developed a Wireshark plugin for the Nested Varan Frames protocol. I extended an existing NSIS installer. Used programming languages were C and C++.

Aug 2008 ppedv AG Burghausen, Bavaria, Germany

July 2008 Summer Intern

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.

#### Interests

professional memory management, database tuning

personal car racing, meet friends