

# Andreas Jaggi

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## Objective

Contribute to an interesting project with an innovative company allowing me to prove my skills, extend my knowledge and gain more experience.

## Value Offered

**More than 6 years Web work experience, and a solid knowledge in Linux, Networks and Internet technologies.** An extremely motivated and versatile person.

## Work Experience

**Freelance Web developer** at Waterwave Webdesign, Thun / 2001 - Present

Planned and established standards-compliant Websites and Web applications (CMS, Onlinestore, Weblog, Community tools) using XHTML, CSS, XML-RPC, MySQL and PHP.

**Developer** at KIS, Swiss Federal Institute of Technology (EPFL), Lausanne / 2004 - Present

- developed Web applications and prototypes for new projects (inForm, Wiki, News-CMS)
- migrated existing projects to standards-compliant XHTML/CSS
- optimized the performance of critical PHP scripts
- improved the usability of Web applications using Web 2.0 technologies
- worked with XHTML, CSS, XML, XML-RPC, SOAP, MySQL, PHP, Python, wxPython, Shell, Smarty, PEAR, LDAP, AJAX, JavaScript, Prototype and Subversion.

**Internship** at NovaWave Technologies, Redwood City, California / March 2007 - September 2007

- worked on an embedded Linux system controlling a near-infrared laser: solved memory restriction problems, transformed the XHTML/CSS/JavaScript GUI and the C++/SOAP server from prototype state to a final product which was sold to Stanford University, identified and closed potential security holes, fixed various performance issues in the application design and the current implementation, introduced Python unit tests for the SOAP interface, improved the build and deployment process to allow one-click-deployments
- administrated and secured the internal network and the production webserver, setup a development server (Subversion, Trac, Debian Linux)
- did research on FPGA/software processor devices to evaluate their suitability for future products or research projects

## Project Experience

**Clustering using task-allocation**, course project / October 2006 - February 2007

Developed a Java prototype/simulation of a threshold-based/market-based algorithm to perform clustering.

**Global Sensor Network**, semester project / October 2006 - February 2007

Developed applications for various embedded systems (Picotux, NSLU2 - Linux/ARM7, BTnodes - NutOS/AVR), in order to integrate new sensor nodes into GSN and to allow GSN to access sensor networks remotely over the Internet.

**Broadcom 43xx Linux Driver** / Summer 2005

Part of the team who developed the Linux driver for the Broadcom bcm43xx wireless chip using reverse engineered specifications. It has been included in the Linux Kernel since 2.6.17-rc2.

**Compiler construction**, course project / October 2005 - February 2006

Implemented in Scala a compiler (Scanner, Parser, Tree, Typer, Generator) for a simple object oriented language.



## Skills

**Operating Systems:** Linux/Unix, Mac OS X, Windows

**Programming languages:** PHP, C/C++, Python, Perl, Shell, Java, wxPython, Scala

**Internet languages:** XHTML/HTML, CSS, JavaScript, AJAX, XML, Smarty

**Databases:** MySQL, Oracle, PostgreSQL

**Applications:** Vim, Inkscape, Gimp, Networking programs, Fireworks, OpenOffice

**Development Tools:** Subversion, Git, CVS, Make, Ant, various Cross-Compiling Toolchains, Trac, Bugzilla, UML, DDD, Eclipse, AWK, SED

**Technologies:** TCP/IP, XML-RPC, SOAP, LDAP

## Education

2000 - 2003 **Bilingual Swiss Matura (German-French)**, Thun-Schadau Gymnasium

2003 - 2006 **Bachelor of Science in Computer Science**

Swiss Federal Institute of Technology Lausanne (EPFL)

2006 - Present **Master Program in Computer Science**, completion in 2009

Swiss Federal Institute of Technology Lausanne (EPFL)

## Publications

**Threshold-Based/Market-Based Algorithms - Clustering using task-allocation**

Mirco Dotta and Andreas Jaggi, Swarm Intelligence Course Project, EPFL / 2007

**Integrating new hardware components in the Global Sensor Network Framework**

Semester project, LSIR, EPFL / 2007

**Usability - Benutzerfreundlichkeit von Websites**

Maturaarbeit, Gymnasium Thun-Schadau / 2002

## Awards

**2<sup>nd</sup> place** in Thinkquest Swiss Web Award 2001

## Languages

Swiss German: Mother tongue

English, German, French: fluent

## Personal Data

Citizenship: Switzerland

Date of Birth: 22<sup>nd</sup> January 1984

## References

**Pierre Crevoisier:** Head of DIT-PRO at EPFL, Lausanne

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