

Jonas Wagner

Address | Jonas Wagner
Rue du Centre 103
1025 St-Sulpice
Mobile | +41 76 511 22 62

Links | people.epfl.ch/jonas.wagner
github.com/Sjlver
codeforces.com/profile/Sjlver
Email | jonas.wagner@epfl.ch



What distinguishes me: The will to never stop learning

Research interests

My mission is to create automated program analysis techniques that help developers construct better software with ease. I prototype these techniques into tools and evaluate them on real-world software systems.

Education

2011 – present: PhD in Computer Science

dslab.epfl.ch

Dependable Systems Lab, EPFL, Lausanne
Under the direction of Prof. George Candea

2008 – 2011: Master in communication systems

ssc.epfl.ch/master

Swiss Federal Institute of Technology (EPFL), Lausanne
Grade point average: 5.87 out of 6

2005 – 2008: Bachelor in communication systems

ssc.epfl.ch/bachelor

Two years at EPFL, Lausanne, and one year at NTU, Singapore
Grade point average: 5.77 out of 6

Projects

ASAP

dslab.epfl.ch/proj/asap

ASAP is an automated approach and tool to instrument programs subject to performance constraints. It combines profiling and compiler techniques to generate programs that are as safe as possible, while satisfying the user's overhead budget.

-OVERIFY

dslab.epfl.ch/pubs/overify.pdf

-OVERIFY is a compiler flag that speeds up software verification by up to 95×. It is based on the insight that compiling for verification requires different optimizations than compiling for fast execution, and introduces a new cost model to generate code that is adapted to the need of verification tools.

Work experience

Sept. 2010 to March 2011: Master Thesis at Open Systems

www.open.ch

Performance measurement of VPN links and automatic detection of performance degradation. This project combined practical application of Perl, C and Unix with engineering and a solid mathematical foundation. The thesis was awarded the maximum grade and was important for upcoming network monitoring efforts at Open Systems.

Feb. to Aug. 2009: Internship at MadeinLocal

www.madeinlocal.com

Web development using Ruby on Rails and JavaScript for MadeinLocal.com, the next generation local guide powered by social networking. In a dynamic start-up team, I assumed responsibility for developing business logic and connections to external sites such as Facebook.

June to Sept. 2008: Internship at Bucher+Suter

www.bucher-suter.com

Internship as a software developer at Bucher+Suter. Various projects using Java, C++ and PHP in a Cisco Contact Center environment.

Publications

ASAP: High Security at Low Overhead

dslab.epfl.ch/proj/asap

Jonas Wagner, Volodymyr Kuznetsov, Johannes Kinder, Azqa Nadeem, and George Candea
Poster presented at the 11th USENIX Symposium on Operating Systems Design and Implementation (OSDI), 2014

-OVERIFY: Optimizing Programs for Fast Verification

dslab.epfl.ch/pubs/overify.pdf

Jonas Wagner, Volodymyr Kuznetsov, and George Candea
14th Workshop on Hot Topics in Operating Systems (HotOS), 2013

Teaching

Teaching assistant

Software Engineering: 2014, 2013, 2012

Calculus: 2014

Introduction to Programming: 2012, 2008, 2006

Information Theory and Coding: 2010

Stochastic Models: 2009

Project supervisor

Summer@EPFL Internship by Azqa Nadeem, 2014

Moodle accessibility checker plugin. 1st year master semester project by Quentin Cosendey, 2014

LibABC: A C library for software analysis. 3rd year bachelor semester project by Florian Vessaz, 2013

Professional Service

External reviewer

OSDI: USENIX Symposium on Operating Systems Design and Implementation, 2014

EuroSys: European Conference on Computer Systems, 2014 and 2012

CIDR: Conference on Innovative Data Systems Research, 2013

SOCC: ACM Symposium on Cloud Computing, 2012

Miscellaneous

Languages

German: native

English: Cambridge Certificate of Advanced English (level C1)

French: fluent (level B2)

Spanish: basic (level A2)

PolyProg: Organizing programming competitions

polyprog.epfl.ch

I am a founding member of PolyProg, a student association at EPFL that promotes algorithmic and programming skills. I've contributed to the organization of numerous programming contests as well as related seminars and trainings.

Cevi: Scouting activities for kids

cevi.regionbern.ch

As leader of a scouting group, I organize activities for children in the nature together with a team of fellow young volunteers. Events range from an afternoon in the forest to one-week scouting camps.

Personal Situation

Birth date: October 20, 1985

Civil status: Unmarried

Nationality: Swiss citizen