

Stefan Klikovits

COMPUTER SCIENTIST · SOFTWARE ENGINEER · PHD STUDENT

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Education

University of Geneva

Geneva, SWITZERLAND

PHD CANDIDATE IN COMPUTER SCIENCE

Jan 2014 - PRESENT

- Modelling and verification of cyber-physical systems
- Test case generation for proprietary programming languages

University of Manchester

Manchester, UNITED KINGDOM

MSC IN ADVANCED COMPUTER SCIENCE

Sep 2012 - Sep 2013

- Specialisation: Advanced Software Engineering
- First class degree
- Dissertation: *VirtualSport @ BBC* with BBC Future Media

Vienna University of Technology

Vienna, AUSTRIA

BSC IN SOFTWARE & INFORMATION ENGINEERING

Oct 2008 - Feb 2012

- Dissertation: Development guidelines for GUI regression testing frameworks

Professional Experience

CERN, European Organization for Nuclear Research

Geneva, SWITZERLAND

DOCTORAL STUDENT

Jan 2014 - Dec 2017

- Automated generation of unit tests based on software source code
- Development of plugins for an Xtext-based IDE
- Development and maintenance of the static code analysis framework

Teaching Assistant

Geneva, SWITZERLAND

UNIVERSITY OF GENEVA

Feb 2017 - Dec 2018

- Courses: Projets Informatiques (IT Projects), Modelling & Verification
- Teaching technical and soft skills for successful project completion

BBC, British Broadcasting Corporation

Manchester, UK

MSC PROJECT

Mar 2013 - Sep 2013

- Development of a Web UI for representing live sports events
- Development of a server prototype to serve thousands of simultaneous requests

KapschTrafficCom AG

Vienna, AUSTRIA

SOFTWARE QUALITY MANAGER, SOFTWARE ENGINEER

May 2012 - Aug 2012

- Development of a framework for automated unit testing of a road tax system
- Responsible for software quality assurance process
- Enhancement of the internal testing framework

CERN, European Organization for Nuclear Research

Geneva, SWITZERLAND

SOFTWARE DEVELOPER (TECHNICAL STUDENT PROGRAM)

Feb 2011 - Jan 2012

- Development of a GUI regression testing framework for the JCOP framework
- Co-authored research paper about GUI regression testing
- Development of automated Unit-tests
- Supervisor: Dr. Paul Burkimsher (mailto: paul.burkimsher@cern.ch)

Brevillier Urban & Sachs GmbH & Co KG

WEB DEVELOPER

- Creation of the webpage <http://www.yes-promotion.at>
- use of AJAX, CodeIgniter and Doctrine

Hirm, AUSTRIA

Sep 2010 - Dec 2010

ETM Professional Control GmbH

SOFTWARE ENGINEER

- Repeated employments
- Development & maintenance of automatic UI-tests
- Manual software testing
- Development of AJAX-web UI "PVSS PocketClient"

Eisenstadt, AUSTRIA

2008 - 2010

Teaching Experience

University Course Assistant

UNIVERSITY OF GENEVA

- I have taught students in both traditional classroom, as well as project-based courses in the following subjects:
IT Projects (students groups build projects), *Modelling & Verification*, *Advanced Formal Methods*,

Geneva, SWITZERLAND

2016-2018

University Course Tutor

VIENNA UNIVERSITY OF TECHNOLOGY

- Course: Software Engineering and Project Management
- Tutoring and guidance of student groups through their software project

Vienna, AUSTRIA

2010

Languages

| | | |
|-----------|-------------------|---|
| German | C2 (native) | |
| English | C2 (fluent) | 5+ years of work in an English speaking environment; MSc in Manchester, England |
| French | B2 (advanced) | living and working in Geneva, Switzerland for 5+ years |
| Croatian | B1 (intermediate) | I am part of a Croatian-speaking, Austrian minority |
| Norwegian | A1 (novice) | |
| Spanish | A1 (novice) | |

Certifications

2016 **NI CLAD**, National Instruments Certified LabVIEW Associate Developer

2013 **ISTQB FL**, International Software Testing Qualifications Board: Foundation Level Certified Tester

Extracurricular activities

Treasurer & Committee member

CERN FOOTBALL CLUB (400+ MEMBERS)

- organisation of daily business
- creation of financial reports, organisation of general meetings
- interaction with sponsors & sports facility operators

Geneva, SWITZERLAND

2016 - 2018

Job-shadowing Student Supervisor

CERN

- Supervision of school students (12 - 20 years) during "industry experience" lasting from 1 day to two weeks
- introduction to CERN's activities & daily business, management of their activities

CERN, Geneva, SWITZERLAND

2014 - 2016

Voluntary Tour Guide

CERN VISITS SERVICE

- Guiding of visits groups through various installations at CERN

CERN, Geneva, SWITZERLAND

2014 - 2017

Please also find the complete list of my publications at <http://klikovits.net/publications>.

- [1] D. Buchs, S. Klikovits, A. Linard, R. Mencattini, and D. Racordon. A model checker collection for the model checking contest using docker and machine learning. In *Application and Theory of Petri Nets and Concurrency - 39th International Conference, PETRI NETS 2018, Bratislava, Slovakia, June 24-29, 2018, Proceedings*, pages 385–395, 2018.
- [2] P. C. Burkimsher, M. Gonzalez-Berges, and S. Klikovits. Multi-platform scada gui regression testing at cern. In *Proceedings of the 13th International Conference on Accelerator and Large Experimental Physics Control Systems*. JACoW, 2011.
- [3] J. Denil, S. Klikovits, P. J. Mosterman, A. Vallecillo, and H. Vangheluwe. The experiment model and validity frame in m&s. In *Proceedings of the Symposium on Theory of Modeling & Simulation, TMS/DEVS '17*, pages 109–120, 2017.
- [4] S. Klikovits, A. Coet, and D. Buchs. ML4CREST: Machine learning for CPS models. In *2nd International Workshop on Model-Driven Engineering for the Internet-of-Things (MDE4IoT) at MODELS'18, Copenhagen, Denmark, 2018*. In Press. Preprint: <https://klikovits.net/mde4iot.pdf>.
- [5] S. Klikovits, J. Denil, A. Muzy, and R. Salay. Modeling frames. In *14th Workshop on Model-Driven Engineering, Verification and Validation (MoDeVVA 2017), 19 September 2017, Austin, TX, USA*, pages 315–320, 2017.
- [6] S. Klikovits, M. Gonzalez-Berges, and D. Buchs. Towards lanuguage independent (dynamic) symbolic execution. In *Proceedings of the 24th PhD Mini-Symposium*, pages 50–53. Budapest University of Technology and Economics, Department of Measurement and Information Systems, 2017.
- [7] S. Klikovits, D. P. Y. Lawrence, M. Gonzalez-Berges, and D. Buchs. Considering execution environment resilience: A white-box approach. In *Software Engineering for Resilient Systems - 7th International Workshop, SERENE 2015, Paris, France, September 7-8, 2015. Proceedings*, pages 46–61, 2015.
- [8] S. Klikovits, D. P. Y. Lawrence, M. Gonzalez-Berges, and D. Buchs. Automated test case generation for the CTRL programming language using pex: Lessons learned. In *Software Engineering for Resilient Systems - 8th International Workshop, SERENE 2016, Gothenburg, Sweden, September 5-6, 2016, Proceedings*, pages 117–132, 2016.
- [9] S. Klikovits, A. Linard, and D. Buchs. CREST - A continuous, reactive systems DSL. In *5th International Workshop on the Globalization of Modeling Languages (GEMOC 2017), 19 September 2017, Austin, TX, USA*, pages 286–291, 2017.
- [10] S. Klikovits, A. Linard, and D. Buchs. CREST - a DSL for reactive cyber-physical systems. In *10th System Analysis and Modeling Conference (SAM 2018), Copenhagen, Denmark, October 15-16, 2018. Proceedings*, 2018.
- [11] S. Klikovits, A. Linard, and D. Buchs. CREST formalization. Technical report, Software Modeling and Verification Group, University of Geneva, 2018.
- [12] S. Klikovits, A. Linard, D. Racordon, and D. Buchs. Petri sport: A sport for Petri netters. In D. Moldt, E. Kindler, and H. Rölke, editors, *Petri Nets and Software Engineering. International Workshop, PNSE'18, Bratislava, Slovakia, June 25-26, 2018. Proceedings*, volume 2138 of *CEUR Workshop Proceedings*, pages 35–56. CEUR-WS.org, 2018.