I am a computer scientist specialized in the area of program analysis and verification, distributed systems, and cyber-physical systems. Program verification is the part of software engineering dedicated to showing that a piece of software has no bugs. In my academic research, I worked on improving software by developing theoretical models to better understand software artifacts and algorithms to analyze them.

To be a successful researcher, I developed general skills that apply to many situations. Foremost, I can learn quickly, adapt, and find creative solutions to hard problems. Furthermore, I can explain my ideas clearly, both orally and in writing.

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2022.02	Carate and		C	C	C	C '1l
2023.02-	Static analy	sis scientist	. Sonar	Source.	Geneva.	Switzerland

2022.01–2023.01 Quality assurance lead, Signaloid, Cambridge, UK

Remote work from Switzerland. Consultant from 2022.01 to 2022.09 then as FTE.

2016.12–2021.11 **Research group leader**, *Max Planck Institute for Software Systems*, Kaiserslautern, Germany

2013.10–2016.9 **Postdoctoral researcher**, *MIT CSAIL*, Cambridge, USA In Martin C. Rinard's group.

### Education

09.2009–09.2013 **PhD**, *Institute of Science and Technology Austria*, Klosterneuburg, Austria Under supervision of Thomas A. Henzinger

09.2004–07.2009 **Bachelor and Master**, École Polytechnique Fédérale, Lausanne, Switzerland Master in Computer Science with specialisation in Foundations of Software

# Interships

07.2012–08.2012	Intern, Max Planck Institute for Software Systems, Saarbrücken, Germany
	One month internship on verification on heap manipulating programs.

05.2012–06.2012 **Research consultant**, *Microsoft Research*, Redmond, USA Verification of async. state machines in the Research in Software Engineering lab.

11.2011–03.2012 **Research intern**, *Microsoft Research*, Redmond, USA Verification of async. state machines in the Research in Software Engineering lab.

07.2007–09.2007 **Intern**, *Simon Fraser University*, Vancouver, Canada Software model checking in the Software Reliability Lab.

## Academic and Teaching Experience

Here are a summary of my academic career in numbers. (Details in my academic CV.)

**Research.** 37 peer-reviewed scientific papers, more than 1200 citations, and my h-index is 18.

Mentoring. I have supervised 3 PhD students and 3 master thesis.

**Teaching.** I co-taught 7 classes in computer science at the master level (TU Kaiserslautern).

**Service.** I organized 3 international conference and workshops. I have been in 20 program committee and reviewed for 26 conferences and journals.

#### Skills

- Leadership (see academic and teaching experience)
- Collaborative work:
  - work in a international and multicultural setting
  - remote work and collaboration (with up to 9 hours time difference)
- Programming
  - Github profile: https://github.com/dzufferey
  - Programming language:
    - $\cdot$  experienced in C/C++ and Scala
    - · competent in Java, Python, Typescript, and shell scripting
- Languages
  - French (native)
  - English (proficient)
  - German (upper-intermediate)

### References

Available upon request

#### Awards

- Excellency Scholarships at the Master level from EPFL.
- Graduated best in class from my Bachelor at EPFL.
- Silver Medal of the ACM International Collegiate Programming Contest (Regionals, South-Western Europe) in 2007 with EPFL (6th place, Swiss champions, team with Frédéric Dubut and Christian Kauth)
- Bronze Medal of the ACM International Collegiate Programming Contest (Regionals, South-Western Europe) in 2006 with EPFL (9th place, Swiss champions, team with Frédéric Dubut and Abhishek Garg)

#### Hobbies

Outside work, I enjoy a few things.

- Making and rapid prototyping. I like using tools like 3D printers and CNC machines to prototype new things, and repair objects.
- Mountains. I enjoy spending time in the mountains to hike, climbing, and ski. I like the majestic environment and pushing my limits (in a safe way).
- O Photography. Observing the world, seeing landscape, object, and situation with an new perspective.