

Christopher Schuster

Born 1 Feb 1987 in Berlin, Germany

Email: cs@chris-schuster.net

Homepage: <https://chris-schuster.net/> (Personal)

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Software engineer at Google, interested in software development tools and programming languages, particularly for program verification and security.

Education

[University of California, Santa Cruz, CA](#)

Sep 2013 - Dec 2018

- PhD, Computer Science

Dec 2018

- PhD Thesis: Towards Live Programming Environments for Statically Verified JavaScript

[University of Potsdam, Hasso Plattner Institute, Germany](#)

Oct 2006 - Apr 2012

- Master of Science, IT Systems Engineering

Apr 2012

- Master Thesis: Reification of Execution State in JavaScript: Implementing the Lively Debugger

- Bachelor of Science, IT Systems Engineering

Sep 2009

- Bachelor Thesis: RESTful Object-oriented Middleware for Distributed Squeak Applications

[University of California, Davis, CA](#)

Sep 2010 - June 2011

- Study Abroad Program

Employment

[Google, Mountain View, CA](#)

- Software engineer (GSuite/Gmail Security)

Dec 2018 - now

- Software engineering intern (Gmail and Android security and software development) *Jun 2017 - Sep 2017*

[Y Combinator Research, San Francisco, CA](#)

Jun 2016 - Sep 2016

- Research intern (development of end-user programming environments)

[Innervision Computers, Scotts Valley, CA](#)

- Full-stack developer (development and deployment of scalable web applications)

Jun 2015 - Sep 2015

- Software development intern (React, NodeJS, etc.) Jun 2014 - Sep 2014
- SAP Labs LLC, Palo Alto, CA May 2012 - May 2013
 - Research intern (development and applied research in tool support for remote teamwork, data exploration and JavaScript development)
- tripunkt GmbH, Berlin Apr 2007 - Apr 2012
 - Software developer (development of enterprise software with focus on web and mobile)

Teaching

Instructor

- CMPS5P Introduction to Programming in Python (UCSC) Summer 2018
- CMPS5P Introduction to Programming in Python (UCSC) Fall 2017
- CMPS5P Introduction to Programming in Python (UCSC) Winter 2017

Teaching assistant

- CMPS130 Computational Models (UCSC) Winter 2018
- CMPS104A Fundamentals of Compiler Design I (UCSC) Spring 2017
- CMPS104A Fundamentals of Compiler Design I (UCSC) Fall 2016
- CMPS 112 Comparative Programming Languages (UCSC) Winter 2016
- CMPS130 Computational Models (UCSC) Fall 2015
- CMPS112 Comparative Programming Languages (UCSC) Winter 2015
- CMPS104A Fundamentals of Compiler Design I (UCSC) Fall 2014
- CMPS112 Comparative Programming Languages (UCSC) Winter 2014
- CMPS104A Fundamentals of Compiler Design I (UCSC) Fall 2013
- SWT1 - Software Engineering (HPI) Summer semester 2009
- SWA - Software Architecture (HPI) Winter semester 2008

Publications

- Christopher Schuster. *Towards Live Programming Environments for Statically Verified JavaScript* PhD thesis. University of California, Santa Cruz December 2018. Santa Cruz, CA, USA.
- Christopher Schuster, Sohum Banerjea, Cormac Flanagan. *esverify: Verifying Dynamically-Typed Higher-Order Functional Programs by SMT Solving* To Appear In: International Symposium on Implementation and Application of Functional Languages (IFL 2018). August 2018. Lowell, MA, USA.
- Robin Graichen, Udo Heller, Eric Linhart, Andreas Müller, Christopher Schuster. *Coalizer: A Coalition Tool Combining Office and Policy Motivations of Political Parties* European Consortium for Political Research General Conference (ECPR 2018). August 2018. Hamburg, Germany.
- Christopher Schuster, Cormac Flanagan. *Live Programming by Example: Using Direct Manipulation for Live Program Synthesis* LIVE workshop on live programming systems (LIVE 2016). July 2016. Rome, Italy.
- Christopher Schuster, Tim Disney, Cormac Flanagan. *Macrofication: Refactoring by Reverse Macro Expansion* Programming Languages and Systems: 25th European Symposium on Programming (ESOP 2016). April 2016. Eindhoven, NL.

- Christopher Schuster, Cormac Flanagan. [Reactive Programming with Reactive Variables](#) Constrained and Reactive Objects Workshop, MODULARITY Companion 2016 (CROW 2016). March 2016. Malaga, Spain.
- Christopher Schuster, Cormac Flanagan. [Live Programming for Event-Based Languages](#) Proceedings of the 2015 Reactive and Event-based Languages and Systems Workshop (REBLS '15). October 2015. Pittsburgh, PA.
- Christopher Schuster, Cormac Flanagan. [A Light-Weight Effect System for JavaScript](#) Proceedings of the 2015 Scripts to Programs Workshop (STOP '15). July 2015. Prague, CZ.
- Christopher Schuster, Cormac Flanagan. [Traveling through Time and Code: Omniscient Debugging and Beyond](#) Presented at the Future Programming Workshop (FPW '14). October 2014. Portland, OR.
- Christopher Schuster, Bipeng Zhang, Rajan Vaish, Paulo Gomes, Jacob Thomas, James Davis. [RTI Compression for Mobile Devices](#) Proceedings of the Sixth International Conference on Information Technology and Multimedia at UNITEN (ICIMu 2014). November 2014. Kuala Lumpur, Malaysia.
- Christopher Schuster. [Reification of Execution State in JavaScript: Implementing the Lively Debugger](#) Master thesis. University of Potsdam April 2012. Potsdam, Germany.
- Christopher Schuster, Malte Appeltauer, Robert Hirschfeld. [Context-oriented Programming for Mobile Devices: JCop on Android](#) Proceedings of the Workshop on Context-oriented Programming (COP '11). July 2011. Lancaster, UK.

Technical Skills

[Linux Professional Institute Certificate LPIC-1](#) and [Novell Certified Linux Administrator](#)

College and work experience with C, C++, C#, Haskell, Java, JavaScript, Python, Smalltalk and SQL.

Volunteer Activities

Assisted the conference organization as a student volunteer at [ECOOP 2011](#), [SPLASH 14](#) and [SPLASH 15](#).

Contributes to open source projects, (see e.g. [Github profile](#)).

Former organizer for [SlugLUG](#), the official UC Santa Cruz Linux User Group.

Trivia

Fluent in both German and English; likes to makes music and travel around the world; [hobby photographer](#).