Dr. Franziska B. Hinkelmann franziska.hinkelmann@gmail.com

Compiler engineer with visibility of a developer advocate. Node.js technical leadership.

Experience

Google, Munich, Germany, May 2016 - now

Software Engineer, V8, Chrome's open source high-performance JavaScript engine, C++ Performance optimizations, inspector protocol, anything related to Node.js.

Node.js Technical Steering Committee (TSC) member and Node.js collaborator
The TSC is responsible for high-level guidance of the Node.js project.

TNG Technology Consulting GmbH, Unterföhring, Germany, September 2013 - April 2016

Senior Software Consultant, Java

Mathematical Biosciences Institute, Ohio State University, OH, September 2011 - August 2013

National Science Foundation **Postdoctoral Fellow**
Mentor: Michael Stillman, Cornell University

Education

Virginia Tech, Blacksburg, VA, August 2006 - August 2011

Ph.D. Mathematics, August 2011
Reinhard Laubenbacher (Virginia Bioinformatics Institute), Advisor
Algebraic theory for discrete models in systems biology

M.S. Mathematics, May 2007

Universität Karlsruhe, Karlsruhe, Germany, October 2002 - July 2006

Vordiplom Mathematik, minor Computer Science, May 2006

OpenSource Contributions

Node.js https://github.com/nodejs/node/commits?author=fhinkel

Chorme V8 https://github.com/v8/v8/commits?author=fhinkel

Selected Invited Talks

Keynote **Node Interactive**, *V8 and Node.js*, October 4-6, 2017, Vancouver, Canada

JSConf EU, *JavaScript engines - how do they even?*, May 6-7, 2017, Berlin, Germany

---

Selected Blog Posts

Understanding V8's Bytecode, Medium

---

twitter.com/fhinkel medium.com/@fhinkel github.com/fhinkel

Dr. Franziska B. Hinkelmann franziska.hinkelmann@gmail.com

Publications

Singular online, **F. Hinkelmann**, L. Kastner, Y. Ren, Computeralgebra Rundbrief 2017, CA-Rundbrief, Heft 60, 17-21

A Web Application for Macaulay2, L. Kastner, **F. Hinkelmann**, M. Stillman, 2017, under review

Steady state analysis of Boolean molecular network models via model reduction and computational algebra, A. Veliz-Cuba, B. Aguilar, **F. Hinkelmann**, R. Laubenbacher, BMC Bioinformatics, 2014, DOI: 10.1186/1471-2105-15-221

Inferring Biologically Relevant Models: Nested Canalyzing Functions, **F. Hinkelmann**, A. Jarrah, ISRN Biomathematics, 2012, DOI: 10.5402/2012/613174

ADAM: Analysis of Discrete Models of Biological Systems Using Computer Algebra, **F. Hinkelmann**, M. Brandon, B. Guang, R. McNeill, G. Blekherman, A. Veliz-Cuba, R. Laubenbacher, BMC Bioinformatics, 2011, DOI: 10.1186/1471-2105-12-295

Fast Gröbner Basis Computation for Boolean Polynomials, **F. Hinkelmann**, E. Arnold, 2010, arXiv.org

A Mathematical Framework for Agent Based Models of Complex Biological Networks, **F. Hinkelmann**, D. Murrugarra, A. Jarrah, R. Laubenbacher, Bulletin of Mathematical Biology, 2010, DOI: 10.1007/s11538-010-9582-8

Parameter estimation for Boolean models of biological networks, E. Dimitrova, L. García-Puente, **F. Hinkelmann**, A. Jarrah, R. Laubenbacher, B. Stigler, M. Stillman, P. Vera-Licona, Journal of Theoretical Computer Science, April 2010, DOI: 10.1016/j.tcs.2010.04.034

Boolean Models of Bistable Biological Systems, **F. Hinkelmann**, R. Laubenbacher, Journal of Discrete and Continuous Dynamical Systems - Series S (DCDS-S) 4-6 December 2011 special issue on Biomathematics, DOI: 10.3934/dcdss.2011.4.1443

Book Chapters

Algebraic models and their use in systems biology, R. Laubenbacher, **F. Hinkelmann**, D. Murrugarra, A. Veliz-Cuba, Discrete and Topological Models in Molecular Biology, edited by Natasa Jonoska and Masahico Saito, Springer, ISBN: 9783642401923, 2013

Agent-based models and optimal control in biology: an algebraic approach, **F. Hinkelmann**, M. Oremland, R. Laubenbacher, Mathematical Concepts and Methods in Modern Biology, Edited by Raina Robeva and Terrell Hodge, Elsevier, ISBN: 9780124157804, 2013

Finite Fields in Biology, **F. Hinkelmann**, R. Laubenbacher, Handbook on Finite Fields, edited by Gary Mullen and Daniel Panario, CRC Press, ISBN: 9781439873786, 2013

Dr. Franziska B. Hinkelmann franziska.hinkelmann@gmail.com

HONORS

AWM Travel Award AWM Workshop in conjunction with the Joint Mathematics Meeting, January 4-7, 2012, Boston, MA

MBI Postdoctoral Fellow 2011-2014

Steeneck Fellowship 2010-2011

AMS Travel Award Joint Mathematics Meeting, January 13-16, 2010, San Francisco, California

SACNAS Travel Scholarship (Advancing Hispanics/Chicanos and Native Americans in Science), Improving the Human Condition: Challenges for Interdisciplinary Science, October 15-18, 2009, Dallas, Texas

SIAM Travel Award SIAM Annual Meeting, July 6-10, 2009, Denver, Colorado

SIAM Student Chapter Certificate of Recognition 2009, faculty advisor Lizette Zietsman

SIAM Student Travel Award SIAM Annual Meeting, July 7-11, 2008, San Diego, California

Hatcher Fellowship Summer 2008

Baden-Württemberg Stipendium Scholarship 2006-2007