

Ian Rose

ianrose14@gmail.com
<https://github.com/ianrose14>

212 4th Avenue
Decatur GA 30030
(678) 561-5012

Software engineer with diverse experience in both industry and academia. Particular expertise in building distributed systems, automating processes and running live, production systems.

Experience

Founding Engineer 2012 - present
FullStory

- Contributed heavily to application development since the start of the company.
- Designed and built much of the CI pipeline (build, test) and deployment tooling, for both VM-based applications and those running in Kubernetes.
- Expert usage in several Google Cloud Platform products, including ground-up development of local development emulators for several services.
- Infrastructure team lead: prioritized work, set team goals, addressed problems and issues.
- Designed and implemented logging, monitoring and alerting infrastructure for all applications.

Software Engineer 2011 - 2012
Google, Inc.

- Member of a large team that developed an internal product for collaborative document editing.
- Developed several scalable, distributed backend services built on Google internal services.

Graduate Research Intern Summer, 2007
Sun Microsystems

Senior Software Design Engineer 2000 - 2005
MicroStrategy & Alarm.com

- Played an instrumental role in developing a novel wireless home security offering, from a early concept to a growing, active business.
- Created and maintained customer website (www.alarm.com) to provide customers with secure, remote monitoring and control of their security system.

Undergraduate Research Student 1998 - 1999
Los Alamos National Laboratory

- Participated in a selective program for STEM internships, advised by Dr. Irving J. Bigio.
- Independent research on cancer detection, using neural network and statistical clustering techniques to classify spectral measurements of tissues.

Education

PhD, Computer Science 2005 - 2011
Harvard University

- Dissertation: *Real-Time Query Systems for Complex Data Sources*

- Dissertation committee: Matt Welsh (advisor), Jim Waldo, Margo Seltzer
- Conducted research on distributed systems for outdoor wireless network monitoring (*Argos*), decentralized algorithms for resource-sharing in wireless sensor networks (*Desync*), and internet-scale query systems (*Cobra*).

MS, Computer Science 2005 - 2008
Harvard University

AB, Computer Science 1996 - 2000
Dartmouth College

Skills

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- Programming languages: Go, Python, Java, C, C++, JavaScript, shell scripting
 - Experienced in Linux and FreeBSD development and system utilities
 - Databases: Solr, Zookeeper, PostgreSQL, MySQL, Microsoft SQL Server
 - Cloud experience: Google Cloud Platform, AWS

Publications

“Mapping the Urban Wireless Landscape with Argos”. Ian Rose and Matt Welsh. *In Proceedings of the 8th ACM Conference on Embedded Networked Sensor Systems (SenSys '10)*, Nov 2010.

“CitySense: An Urban-Scale Wireless Sensor Network and Testbed”. Rohan Murty, Geoffrey Mainland, Ian Rose, Atanu Roy Chowdhury, Abhimanyu Gosain, Josh Bers, and Matt Welsh. *In Proceedings of the 2008 IEEE International Conference on Technologies for Homeland Security*, May 2008.

“Cobra: Content based Filtering and Aggregation of Blogs and RSS Feeds”. Ian Rose, Rohan Murty, Peter Pietzuch, Jonathan Ledlie, Mema Roussopoulos, and Matt Welsh, *In Proceedings of the 4th USENIX Symposium on Networked Systems Design & Implementation (NSDI '07)*, April 2007.

“DESYNC: Self-Organizing Desynchronization and TDMA on Wireless Sensor Networks”. Julius Degeysys, Ian Rose, Ankit Patel, and Radhika Nagpal, *In Proceedings of the 6th International Conference on Information Processing in Sensor Networks (IPSN '07)*, April 2007.

“Diagnosis of breast cancer using elastic-scattering spectroscopy: preliminary clinical results”. Irving J. Bigio, Stephen G. Bown, Gavin Briggs, Christine Kelley, Sunil Lakhani, David Pickard, Paul M. Ripley, Ian G. Rose, and Christobel Saunders. *Journal of Biomedical Optics*, Volume 5, Issue 2, April 2000.

Honors & Awards

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- Robert L. Wallace Prize Fellowship, 2006-2007, Harvard University
 - Grosswirth-Salny Scholarship, 1999, the American Mensa Education and Research Foundation