

# Ryan Jay Huebsch

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- Objective** A full time position designing, building, testing, or operating distributed and/or database systems.
- Work Experience**
- Conviva, Inc. (formerly Rinera Networks Inc.);** San Mateo, CA (Sept 2006 – Present)
- Manager, Systems Engineering (Nov 2008 – Present)
    - Managed 24x7 production services, including hardware, application stack, and customer support. Purchased and maintained over 400 machines and network devices in 4 locations.
    - Participated in design of application with focus on deployment, manageability, monitoring, and systems interactions.
  - Team Manager, Customer Engineering (Jan 2008 – Nov 2008)
    - Provided technical and professional services for customers
  - Member of Technical Staff (Sept 2006 – Jan 2008)
    - Designed and implemented first revision of the logging and monitoring systems using C++ and Java GUI.
    - Performed QA on entire system, including designing and implementing first revision of an automated Windows testing platform
    - Operated the company IT and production systems
- Intel Research;** Berkeley, CA (Summer 2003, Summer 2004)
- Research Intern at Intel Research, Berkeley working on implementing the PIER project on the international test bed, PlanetLab. (Summer 2003, Summer 2004)
- University of California, Berkeley;** Berkeley, CA (Fall 2001 – Spring 2008)
- Graduate Researcher for Joseph M. Hellerstein, Ion Stoica and Scott Shenker working on the PIER project. Work also includes mentoring undergraduate student. (Summer 2002, Spring 2003 – Summer 2006)
  - Teaching Assistant for senior level Database Systems course at UC Berkeley, responsible for discussion section, developing projects, and grading. (Fall 2002)
- Rensselaer Polytechnic Institute;** Troy, NY
- Teaching Assistant for senior level Database Systems course at Rensselaer Polytechnic Institute responsible for studio/lab teaching and grading. (Fall 2000)
  - Network Systems Administrator for the Rensselaer Union, maintenance of 40 client machines in multiple buildings, four network servers and user support. (Summer 1998 – Spring 2001)

## Education

**University of California, Berkeley;** Berkeley, CA (Fall 2001 – Spring 2008)

Masters of Science in Computer Science, conferred May 2003

Ph.D. in Computer Science, conferred May 2008

Advisors: Joseph M. Hellerstein and Ion Stoica

G.P.A.: 3.87/4.0 (overall)

Coursework in databases, networks, operating systems, P2P systems, privacy and security, parallel computing, digital documents, cyber law, and public policy.

**Rensselaer Polytechnic Institute;** Troy, NY (Fall 1997 – Spring 2001)

Bachelor of Science in Computer Science and Computer Systems Engineering, conferred May 2001. G.P.A.: 4.0/4.0 (overall)

## Research

**University of California, Berkeley;** Berkeley, CA

**Intel Research;** Berkeley, CA

- *PIER: Peer-to-Peer Information Exchange and Retrieval.* (Fall 2001 – present)  
The project is focused on the design and implementation of a massively distributed query engine based on overlay networks, which is intended to bring database query facilities to new, widely distributed environments. My primary contributions included the architecture and implementation of the query processor, and algorithms for sharing aggregation computation between multiple continuous queries. <http://pier.cs.berkeley.edu>

**Rensselaer Polytechnic Institute;** Troy, NY

- Undergraduate Research Project “*CAVES: A Configurable Application View Storage System.*” (Fall 2000 – Spring 2001)  
Work funded by a NSF REU grant. CAVES is middleware caching software that can be dynamically configured by both the application (on how to reuse the data) and the client (by specifying what data they are interested in).  
<http://www.cs.rpi.edu/~sibel/research/CAVES>
- Undergraduate Research Project “*Project: Links.*” (Summer 1998 – Fall 2000)  
The project was focused on bringing math and science education to the web.  
<http://links.math.rpi.edu>

## Skills

### Summary

- Java, C, C++, PHP, Python, JSP, ASP, and shell script languages.
- Oracle, DB2, MySQL, and PostgreSQL database systems.
- Linux (Fedora and CentOS) and Windows platforms, including configuration, networking and administration.
- BGP, 802.1q, Cisco routers/switches/security appliances, Dell switches, Barracuda load balancers
- Administration of http, ftp, tftp, dhcp, dns, and mail servers

## Professional Affiliations

- Eta Kappa Nu, National Electrical and Computer Engineering Honor Society (2000 – present)
- ACM SIGMOD Member (2001 – present)

## Honors & Awards

- US Department of Education, Graduate Assistance in Areas of National Need (GAANN) Fellowship (Fall 2001 – Summer 2002)
- NSF Graduate Fellowship Honorable Mention in Computer Science (2001)
- The Stanley I. Landgraf Prize by Rensselaer Polytechnic Institute (May 2001)
- Awarded the Rensselaer Founders Award of Excellence from the School of Science (Fall 1999)

## Selected Publications

- R. Huebsch. "PIER: Internet Scale P2P Query Processing with Distributed Hash Tables." PhD Dissertation, UC Berkeley, May 2008.
- R. Huebsch, M. Garofalakis, J. M. Hellerstein, and I. Stoica. "*Sharing Aggregate Computation for Distributed Queries.*" SIGMOD, June 2007.
- R. Huebsch, B. Chun, J. M. Hellerstein, B. T. Loo, P. Maniatis, T. Roscoe, S. Shenker, I. Stoica, and A. R. Yumerefendi. "*The Architecture of PIER: an Internet-Scale Query Processor.*" CIDR, January 2005.
- B. Chun, J. M. Hellerstein, R. Huebsch, P. Maniatis, and T. Roscoe. "*Design Considerations for Information Planes.*" WORLDS, December 2004.
- B. T. Loo, J. M. Hellerstein, R. Huebsch, S. Shenker, and I. Stoica. "*Enhancing P2P File-Sharing with an Internet-Scale Query Processor.*" VLDB, September 2004.
- B. Chun, J. M. Hellerstein, R. Huebsch, S. R. Jeffery, B. T. Loo, S. Mardanbeigi, T. Roscoe, S. C. Rhea, S. Shenker, and I. Stoica. "Querying at Internet-Scale." SIGMOD Demo, June 2004.
- B. T. Loo, R. Huebsch, I. Stoica, and J. M. Hellerstein, "The Case for a Hybrid P2P Search Infrastructure." IPTPS, February 2004.
- R. Huebsch, B. Chun, and J. M. Hellerstein. "*PIER on PlanetLab: Initial Experience and Open Problems.*" Intel Research Technical Report IRB-TR-03-043, November 2003.
- R. Huebsch, J. M. Hellerstein, N. Lanham, B. T. Loo, S. Shenker, and I. Stoica. "Querying the Internet with PIER." VLDB, September 2003.
- R. Huebsch. "*Content-Based Multicast: Comparison of Implementation Options.*" UC Berkeley Technical Report UCB//CSD-03-1229, February 2003.
- D. Oppenheimer, J. M. Hellerstein, R. Huebsch, and D. A. Patterson. "*Benchmarking DHTs with Queries.*" UC Berkeley Technical Report UCB//CSD-03-1222, January 2003.
- M. Harren, J. M. Hellerstein, R. Huebsch, B. T. Loo, S. Shenker, and I. Stoica. "*Complex Queries in DHT-based Peer-to-Peer Networks.*" IPTPS, March 2002.