

Aaron J. Elmore

Distributed Systems Lab
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Current Position

Research Assistant / PhD Student, University of California Santa Barbara
Advisors: DIVYAKANT AGRAWAL & AMR EL ABBADI

Areas of Specialization

Multitenant Database Systems • Cloud Computing • Web Application Development

Education

2014 (est) PhD in Computer Science, University of California Santa Barbara. GPA 3.95
2009 MS in Computer Science, University of Chicago. GPA 3.88
2002 BS in Electronic Commerce Technologies, DePaul University. GPA 3.76 Magna Cum Laude.

Grants, Honors & Awards

2009 Outstanding Teaching Assistant, UCSB
2009–2010 Computer Science Merit Fellowship
2000–2001 Top of the Class Honors, DePaul University

Publications

2012 Stacy Patterson, **Aaron J. Elmore**, Faisal Nawab, Divyakant Agrawal, Amr El Abbadi. “Serializability, not Serial: Concurrency Control and Availability in Multi-Datacenter Datastores”, *VLDB* 2012. (To appear)

2012 Divyakant Agrawal, Amr El Abbadi, Beng Chin Ooi, Sudipto Das, **Aaron J. Elmore**. “The evolving landscape of data management in the cloud”, *International Journal of Computational Science and Engineering* 2012.

2011 **Aaron J. Elmore**, Sudipto Das, Divyakant Agrawal, Amr El Abbadi. “Zephyr: Live Migration in Shared Nothing Databases for Elastic Cloud Platforms”, *ACM International Conference on Management of Data (SIGMOD)* 2011, pp 301-312. [Acceptance Rate: 87/375 (23%)]

2011 Divyakant Agrawal, Amr El Abbadi, Sudipto Das, **Aaron J. Elmore**. “Database Scalability, Elasticity, and Autonomy in the Cloud”. *16th International Conference on Database Systems for Advanced Applications (DASFAA)* 2011, pp 2-15.

2011 **Aaron J. Elmore**, Sudipto Das, Divyakant Agrawal, Amr El Abbadi. “Towards an Elastic and Autonomous Multitenant Database”, *6th International Workshop on Networking Meets Databases (NetDB)* 2011.

INVITED TALKS

- 2012 “MapReduce: Distributed Programming for Commodity Clusters”, University of Southern California Graduate Datamining Course. Spring 2012
- 2010,2011 “Databases in the Cloud”, University of Chicago Graduate Database Course. Fall 2010, Spring 2010, Fall 2011.

Teaching

- 2009-2012 Teaching Assistant for CS20 “Programming Methods”, CS174a “Database Systems”, CS271 “Adv. Topics in Distributed Systems”, CS274 “Adv. Topics in Databases”

Professional Experience

- 2010 *Software Engineering Intern*
AMAZON WEB SERVICES Seattle, WA
Developed an internal, distributed, automated, deployment for monitoring service configurations.
- 2010-Present *Research Assistant*
NATIONAL CENTER FOR ECOLOGICAL ANALYSIS AND SYNTHESIS (NCEAS) Santa Barbara, CA
Helped design and develop JEDI, a web enabled spatial information system to encourage collaboration on jellyfish bloom populations between ecologists.
- 2010-Present *Research Assistant*
DISTRIBUTED SYSTEMS LAB, UCSB Santa Barbara, CA
Researched large scale, distributed and multitenant database systems.
- 2008-2009 *Research Assistant*
COMPUTATION INSTITUTE / UNIVERSITY OF CHICAGO Chicago, IL
Developed GWT web based module for Generalized Labels Over Scientific data Studies (GLOSS), a collaborative data tagging system. Researched bootstrapping based information extraction algorithm for identifying taggable elements based on training data.
- 2007-Present *Chief Architect*
CUSTOMORE Chicago, IL
Designed and implemented a pay-per-click (PPC) management and tracking platform.
- 2006-2008 *Software Engineer*
iSYNC / GS1US Chicago, IL
Helped lead design and implementation of re-platforming the Universal Product Code (UPC/barcode) registry application with a 16,000 user base. Developed UI modules for extensible data objects for Item Management, a GDSN data pool synchronization platform— with 2.7 million items synchronized between retailers and suppliers, including many Fortune 50 companies.
- 2005-2006 *Software Engineer*
JC WHITNEY Chicago, IL
Developed J2EE applications for internal systems and customer facing website, which was in the top 100 E-commerce sites based on revenue. One of three developers responsible for 24/7 support. Led search engine optimization efforts which increased search traffic by 33%.
- 2002-2005 *Software Engineer*
THE INCREMENTUM GROUP, LLC Chicago, IL
Lead development for customer service, reporting and billing applications.

2000–2002 *Computer Science Tutor*
DEPAUL UNIVERSITY
Tutored undergraduate and graduate students on various CS topics.

Chicago, IL

Professional Activities

2010–2011 UCSB Computer Science Graduate Representative President
2010–2011 UCSB Computer Science Graduate Admissions Committee Representative
2011 Student member of ACM
2011 External reviewer for ODBASE 2011, VLDB 2012
2011 Helped organize the NSF Workshop “Science of Cloud” held in March 2011
2011 Mentored undergraduate student researchers in Summer 2011

Technical Skills

LANGUAGES (BY PROFICIENCY)

Java, Python, SQL, Javascript, C, Ruby, C++

GRADUATE COURSEWORK

Advanced (Adv.) Data Mining, Adv. Topics in Databases, Combinatorial Algorithms, Adv. Topics in Distributed Systems, Adv. Algorithms (NP, Graph Theory and Approximations), Adv. Operating Systems, Information Retrieval and Mining, Algorithms, Networks and Distributed Systems, Applied Parallel Programming, Information Extraction Algorithms for Semi-structured Data, Databases, Adv. C++, Distributed Objects, and Enterprise Architecture.