

Shaon Barman

Curriculum Vitae

310 Oakland Ave
Oakland, CA 94611
☎ +1 (832) 971 9204
✉ shaon.barman@gmail.com

Education

- 2009
2015
Ph.D. in Computer Science, *University of California, Berkeley*, GPA: 3.85.
Emphasis in Programming Languages
- 2005
2009
B.S. in Computer Science, *University of Texas at Austin*, GPA: 3.98.
Turing Scholars (CS Honors Program) and Dean Scholars Programs

PhD thesis

- Title *End-User Record and Replay for the Web*
- Advisor Ras Bodik
- Description This thesis explores the design of a record and replay system for webpages. Our system uses novel language features to faithfully replay a user's interactions. We also explore how record and replay can be used as a building block toward more expressive end-user applications.

Publications

Conference Proceedings

- 2015
● Barman, Shaon, Rastislav Bodik, Satish Chandra, Emina Torlak, Arka Bhattacharya, and David Culler. "Toward Tool Support for Interactive Synthesis". In: *Proceedings of the 2015 ACM International Symposium on New Ideas, New Paradigms, and Reflections on Programming & Software*. Onward! 2015. Pittsburgh, Pennsylvania, United States: ACM.
- 2015
● Chasins, Sarah, Shaon Barman, Rastislav Bodik, and Sumit Gulwani. "Browser Record and Replay As a Building Block for End-User Web Automation Tools". In: *Proceedings of the 24th International Conference on World Wide Web*. WWW '15 Companion. Florence, Italy: International World Wide Web Conferences Steering Committee, pp. 179–182.
- 2011
● Barman, Shaon, Rastislav Bodik, Sagar Jain, Yewen Pu, Saurabh Srivastava, and Nicholas Tung. "Parallel Programming with Inductive Synthesis". In: *Proceedings of the 3rd USENIX Conference on Hot Topic in Parallelism*. HotPar'11. Berkeley, CA: USENIX Association, pp. 14–14.

2011
Chandra, Satish, Emina Torlak, Shaon Barman, and Rastislav Bodik. "Angelic Debugging". In: *Proceedings of the 33rd International Conference on Software Engineering*. ICSE '11. Waikiki, Honolulu, HI, USA: ACM, pp. 121–130.

2010
Bodik, Rastislav, Satish Chandra, Joel Galenson, Doug Kimelman, Nicholas Tung, Shaon Barman, and Casey Rodarmor. "Programming with Angelic Nondeterminism". In: *Proceedings of the 37th Annual ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages*. POPL '10. Madrid, Spain: ACM, pp. 339–352.

Undergraduate Honors Thesis

2009
Barman, Shaon. "Aster: Automatic abstract syntax". University of Texas at Austin.

Work Experience

2011
Software Engineer Intern, Mozilla, May 2011 to August 2011.
Implemented initial prototype of a PDF reader written in Javascript (pdf.js)

2010
Research Intern, IBM Research, May 2010 to July 2010.
Implemented a fault localization tool using symbolic programming

2008
Software Engineer Intern, Google, May 2008 to August 2008.
Worked on AdWords Front End Conversion Tracking
Implemented new UI to integrate AdWords and Analytics

2007
Software Development Engineer Intern, Microsoft, May 2007 to August 2007.
Worked on System Center Service Manger
Integrated PowerShell into the existing task infrastructure

2006
Student Programmer, UT Austin Department of Integrative Biology, January 2006 to May 2006.
Implemented algorithms to analyze correlations in DNA sequences

2005
Summer Intern, BP, May 2005 to August 2005.
Learned basic SQL and data mining techniques
Worked within a large database used to schedule work on oil platforms

Teaching Experience

2014
CS 164: Hack Your Language!, *Teaching Assistant*, Professor Ras Bodik, Fall 2014.
Received 4.8 / 5.0 from student reviews

2012
CS 164: Hack Your Language!, *Lead Teaching Assistant*, Professor Ras Bodik, Spring 2012.
Received 4.0 / 5.0 from student reviews

Volunteer Experience

2009
2015
Asha for Education, Project Steward, October 2009 to May 2015.
Presented updates and funding requests for Jamghat, a children's shelter in Delhi

- 2014 ● **Techbridge, Mentor**, January 2014 to May 2014.
Mentored a group of high school girls working on projects involving Arduinos
- 2008
2009 ■ **FIRST Robotics, Mentor**, January 2008 to May 2009.
Helped mentor a high robotics team with the programming and construction of a robot
- 2006 ● **Austin's Children Museum, Volunteer**, June 2006.
Helped at a robotics camp teaching kids how to program Lego Mindstorms kits

Selected Coursework

- 2015 ● **Audited INFO 298: Bridging the Digital Divide**, *Instructor: Yahel Ben-David*.
Learned about the Further Reach network, a wireless broadband ISP serving a rural, sparsely-populated area
- 2014 ● **PH 290: Eat. Think. Design**, *Instructor: Jaspal Sandhu*.
Applied the design process to find new ways of increasing access to healthy foods within the Navajo Nation
- 2012 ● **INFO 235: Cyberlaw**, *Instructor: Brian Carver*.
Wrote a Wikipedia article on the US Supreme Court case *United States v. Cotterman*
- 2011 ● **E 290e: Marketing Emerging Technologies**, *Instructor: Andrew Isaacs*.
Wrote a business plan for Captricity, a startup which crowdsources text extraction
- 2010 ● **CS 260: Human Computer Interaction**, *Instructor: Björn Hartmann*.
Developed a new IVR system for NextDrop, a project to crowdsource water availability information in the developing world
- 2010 ● **CS 294: Cellphones as a Computing Platform**, *Instructor: Eric Brewer*.
Helped create a system to record EKGs using a Nokia N900 cell phone and inexpensive circuits
- 2009 ● **CS 265: Dynamic Program Analysis, Testing, and Debugging**, *Instructor: Koushik Sen*.
- 2009 ● **CS 262a: Computer Systems**, *Instructor: Eric Brewer*.

Achievements

- Computing Research Assn.'s Outstanding Undergraduate Award-Honorable Mention (2009)