

Ryan Carlson

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Objective I aim to create engaging and effective educational experiences through software engineering, data mining, and learning science.

Education

Carnegie Mellon University, Pittsburgh, PA (2011 - present)

PhD student at the Language Technologies Institute. Fellow in the Program for Interdisciplinary Education Research (PIER). GPA: 3.85.

Swarthmore College, Swarthmore, PA (2007 - 2011)

Graduated with Honors. Major in Computer Science, Minor in Cognitive Science. Total GPA: 3.69, Major GPA: 3.92.

Professional Experience

Software Engineering Intern, Google Maps for Android, *Google*, Mountain View, CA (May – Aug. 2013)

- Created framework to enhance benchmark reliability by making tests network-independent.
- Improved Places Pages, offering user additional details about a business.

Software Engineer, *Safaba Translation Solutions*, Pittsburgh, PA (Nov. 2011 – present)

- Built machine translation systems customized to client demands.
- Analyzed translation quality and generated fixes to improve our engines.
- Developed SSL-encrypted translation server used by our clients.

Lead Mobile Developer, *Ludo Mechanica*, Pittsburgh, PA (Aug. 2012 – May 2013)

- Developed DropKicker, an Android app to help users change their habits.
- Worked with a small team to design the app specifications and visual direction.

Web Administrator, *Swarthmore College Admissions*, Swarthmore, PA (Jan. 2009 – May 2011)

- Created and maintained Admissions pages (i.e. blogs, college fairs, web ambassadors).
- Set up and monitored Facebook page for admitted students.

Teaching Assistant, *Swarthmore College Computer Science Department*, Swarthmore, PA (Jan. 2009 – Dec. 2010)

- Ran weekly sessions to help introductory computer science students with homework.
- Provided assistance in class and lab.
- Introduced and supervised labs in professor's absence.

Publications

R. Carlson, K. Genin, M. Rau, and R. Scheines. Student Profiling from Tutoring System Log Data: When do Multiple Graphical Representations Matter? In Proc. Educational Data Mining, July 2013.

I. Goldin and **R. Carlson**. Learner Differences and Hint Content. In Proc. Artificial Intelligence in Education, July 2013.

R. Carlson, V. Keiser, N. Matsuda, K. R. Koedinger, C. P. Rosé. Building a Conversational SimStudent. In Proc. Intelligent Tutoring Systems, pages 563-569, June 2012 (Short Paper).

A. Ogan, S. Finkelstein, E. Walker, **R. Carlson**, and J. Cassell. Rudeness and Rapport: Insults and Learning Gains in Peer Tutoring. In Proc. Intelligent Tutoring Systems, pages 11-21, June 2012.

A. Stromme, **R. Carlson**, and T. Newhall. Chestnut: A GPU Programming Language for Non-Experts. In Proc. ACM Workshop on Programming Models and Applications for Multicores and Manycores, pages 156-167, Feb 2012.

R. Carlson and A. Danner. Bridge detection in grid terrains and improved drainage enforcement. In Proc. ACM Symposium on Advances in Geographic Information Systems, pages 250-260, Nov 2010.

Skills

Computer Languages (*Proficient*) Python, Java, R, Bash; (*Familiar*) C, C++, Objective-C, Lisp (CL/Scheme), PostgreSQL, JavaScript, HTML, CSS.

Operating Systems Android, iOS, Linux, Mac OS X, Windows.