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

Language Technologies Institute, Carnegie Mellon University, Pittsburgh, PA (2011 - 2013)
Master of Science in Language Technologies. Fellow in the Program for Interdisciplinary Education Research (PIER). GPA: 3.81.

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

Research Programmer, *Carnegie Learning*, Pittsburgh, PA (starting Feb. 2014)

- I will be implementing software and running statistical analyses to support researchers conducting field experiments

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 – Dec. 2013)

- 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.

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.