

Allison Regier
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Research interests: Bioinformatics, comparative genomics

Education

University of Notre Dame South Bend, IN
PhD student in computer science and engineering August 2006-present
Advisor: Scott J. Emrich

Masters of Computer Science and Engineering January 2009
Thesis: "Challenges in working with draft genomes"

Bethel College North Newton, KS
B.A., Computer science and German (GPA 3.987) 2004
Minor in mathematical sciences

Honors

University Presidential Fellowship, University of Notre Dame 2006-present

Bethel College Presidential Scholarship 2000-2004

Publications and Peer-reviewed Conferences

Allison Regier, Changde Chang, Nora J. Besansky, and Scott J. Emrich. Improved inversion predictions for Anopheline mosquitoes. *Joint ISCB Africa ASBCB Conference on Bioinformatics of Infectious Diseases*, Bamako, Mali, November 2009.

Allison Regier, Michael Olson. and Scott J. Emrich. Alignment and analysis of closely related genomes. *1st International Conference on Bioinformatics and Computational Biology* (BiCoB 2009), New Orleans, LA, April 2009.

Chris Boehnen, Allison Regier, Deborah Thomas, Surendar Chandra and Patrick Flynn. Mosaicing videos to stream over multiple independent channels. *17th ACM Workshop on Network and Operating Systems Support for Digital Audio and Video* (NOSSDAV 07), Urbana-Champaign, IL, June 2007.

Posters and presentations

Allison Regier, Scott J. Emrich and Nora J. Besansky. Computationally finding inversion breakpoints using mated pairs. Poster at *16th Annual International Conference for Intelligent Systems for Molecular Biology* (ISMB '08), Toronto, Canada July 19-23.

Allison Regier, "Genome assembly- computer science perspective". Guest lecture in the biology course, Genomics: Sequence to Organism.

Academic service and activities

University Committee on Women Faculty and Students Graduate Student Representative

Member of Eck Family Institute for Global Health and Infectious Diseases

Research and professional experience

Graduate Student

August 2006 - present

University of Notre Dame, South Bend, IN

- Ph.D. research is focused on developing and evaluating algorithms and pipelines that work with genomic data, taking data quality into account for more reliable predictions.
- Collaborate with global health researchers to apply bioinformatics methods that produce biologically meaningful results.

Software engineer

June 2004-June 2006

LSI Logic Storage System Division, Wichita, KS

- Designed, developed, tested, and maintained graphical user interface software used to manage storage systems. Worked in a team environment using robust software engineering processes and tools including Java, Eclipse, ChangeSynergy, InstallAnywhere, Windows and Unix operating system tools
- Mentored a newly hired engineer November 2005-June 2006

Distributed Mentoring Project Participant

Summer 2003

University of Wisconsin-Milwaukee

- Worked closely with faculty mentor on annotated multimedia databases to be used for natural language processing research
- Developed a GUI-based system written in Java to analyze annotated speech data

Tutor

August 2002-May 2004

Center for Academic Development, Bethel College

- Independently planned and led weekly oral practice sessions for beginning German students
- Tutored individual students in computer science, math, and writing courses