

# Mark F. Rogers

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## Education

- Expected 2012 **Ph.D.**, *Computer Science*, Colorado State University.
- 2006 **M.S.**, *Computer Science*, Colorado State University.
- 1992 **M.S.**, *Statistics*, University of Delaware.
- 1982 **B.A.**, *Mathematics*, University of Delaware.

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## EMPLOYMENT, COLORADO STATE UNIVERSITY

- 2006–present **Graduate Research Assistant**, Worked with Professor Asa Ben-Hur: developed the *SpliceGrapher* package for automated detection of alternative splicing, assessed the impact of classifier bias in protein function prediction.
- 2004–2006 **Graduate Research Assistant**, Worked with Professors Adele Howe and Darrell Whitley: confirmed the existence of short cuts in search algorithms that exploit infeasible solution space.
- 2005–2008 **Teaching Assistantships**.
  - CS160 Foundations in Programming, Fall 2008
  - CS200 Algorithms and Data Structures, Spring 2008
  - CS166 Discrete Structures, Spring 2005

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## Publications

- Journals A.S.N. Reddy\*, M.F. Rogers\*, D. Richardson, M. Hamilton and A. Ben-Hur. Experimental and computational approaches towards deciphering the plant splicing code. *Frontiers in Plant Genetics and Genomics*, Vol. 3, 2012. (\*co-first authors)
- M.F. Rogers, J. Thomas, A.S.N. Reddy and A. Ben-Hur. SpliceGrapher: Detecting patterns of alternative splicing from RNA-seq data in the context of gene models and EST data. *Genome Biology*, Vol. 13, 2012.
- D.N. Richardson, M.F. Rogers, A. Labadorf, A. Ben-Hur, H. Guo, A. Paterson and A.S.N. Reddy. Comparative analysis of serine/arginine-rich proteins across 27 eukaryotes: insights into subfamily classification and extent of alternative splicing, *PLoS ONE*, Vol. 6, no. 9, 2011.
- A. Labadorf, A. Link, M.F. Rogers, J. Thomas, A.S.N. Reddy and A. Ben-Hur. Genome-wide analysis of alternative splicing in *Chlamydomonas reinhardtii*. *BMC Genomics*, Vol. 11, no. 114, 2010.
- M.F. Rogers and A. Ben-Hur. The Use of Gene Ontology Evidence Codes in Preventing Classifier Assessment Bias. *Bioinformatics*, vol. 25, pp. 1173-1177, 2009.

- Conferences M.F. Rogers, A. Howe and D. Whitley. Looking for Shortcuts: Infeasible Search Analysis for Oversubscribed Scheduling Problems. In: *Proceedings of ICAPS 2006*, June 2006, pp. 314-323

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## CONFERENCE TALKS

M.F. Rogers, A. Ben-Hur and A.S.N. Reddy. SpliceGrapher: predicting splice graphs from diverse evidence. ISMB 2011, Late-Breaking Research Track, July 18, 2011, Vienna, Austria.

M.F. Rogers, A. Ben-Hur and A.S.N. Reddy. SpliceGrapher: predicting splice graphs from diverse evidence. ISMB 2011 Alternative Splicing SIG, July 15, 2011, Vienna, Austria.

M.F. Rogers, A. Ben-Hur and A.S.N. Reddy. SpliceGrapher: predicting splice graphs from diverse evidence. ISCB Rocky Mountain Bioinformatics Conference (Rocky '10) December 9-11, 2010, Snowmass, Colorado.

M.F. Rogers, A. Howe and D. Whitley. Looking for Shortcuts: Infeasible Search Analysis for Oversubscribed Scheduling Problems. International Conference on Automated Planning and Scheduling (*ICAPS 2006*), June, 2006, Cumbria, U.K.

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## AWARDS AND FELLOWSHIPS

- 2011 Student Travel Fellowship, ISMB Conference, Vienna, Austria, July 16–19, 2011  
2006 ICAPS Conference Student Travel Fellowship, Cumbria, U.K., June 2006

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## POSTERS

M.F. Rogers, A.S.N. Reddy and A. Ben-Hur. SpliceGrapher: Predicting Splice Graphs from Diverse Evidence. Presented at ISMB 2011, July 17-19, 2011, Vienna, Austria.

M.F. Rogers, A.S.N. Reddy and A. Ben-Hur. SpliceGrapher: Predicting Splice Graphs from Diverse Evidence. Presented at the ISMB AS SIG, July 15-16, 2011, Vienna, Austria.

M.F. Rogers, A.S.N. Reddy and A. Ben-Hur. SpliceGrapher: Predicting Splice Graphs from Diverse Evidence. Presented at the ISMB HiTSEQ SIG, July 15-16, 2011, Vienna, Austria.

M.F. Rogers, A.S.N. Reddy and A. Ben-Hur. SpliceGrapher: Predicting Splice Graphs from Diverse Evidence. Presented at the Rocky 2010 bioinformatics conference.

M. .F. Rogers and A. Ben-Hur. Predicting Alternative Splicing from High-Throughput Sequencing Data. Presented at the Spring 2010 CS Research Symposium, Colorado State University.

A. Sokolov, M.F. Rogers, A. Curtis, A. Ben-Hur and R.M. McConnell. Accurate Initialization of Probabilistic Motif Finders. Presented at the Summer 2007 Graybill Conference Bioinformatics Workshop, Colorado State University.

M.F. Rogers, A. Howe and D. Whitley. Infeasible Search Analysis for Oversubscribed Scheduling Problems Presented at the 2006 ICAPS Doctoral Consortium, English Lake District, U.K.

M.F. Rogers, A. Howe and D. Whitley. Infeasible Search in Oversubscribed Scheduling. Presented at the Spring 2006 CS Research Symposium, Colorado State University. (awarded *Best Masters Poster*)

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## OTHER WORK EXPERIENCE

- 1996-2002 **Software Design Engineer**, *Hewlett-Packard/Co/Create*, Ft. Collins, CO.  
Engaged in all aspects of software product development: product planning, design, prototyping, implementation, integrations and testing using tools such as Java, C and Perl on Unix, Linux and Windows platforms. Administered Oracle, Informix, Sybase and Allbase databases; developed integrations between our products and others such as Pro-Intralink and SAP; wrote InstallShield installation software for Windows.
- 1994-1995 **Software Engineer**, *MBNA*, Newark, DE.  
Developed and maintained bank reporting software using C, C++, awk, kshell, SQL/E-SQL Informix.
- 1988-1994 **Software Engineer**, *Cimtek*, New Castle, DE.  
Wrote computer graphics software for scientific and engineering applications in C, FORTRAN, Perl and PostScript; wrote interface to power plant control system using client-server architectures and OO design in FORTRAN.

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## PATENTS

- Dec. 2002 **U.S. Pat. No. 7,529,773**, *Idea service for automatic file naming and storage.*