

K R I S H N A M R O S K I N

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Interests	<p><i>Bioinformatics</i>: computational genomics, comparative genomics, phylogenetic models. <i>Theoretical Computer Science</i>: machine learning, information theory, cryptography, and complexity theory. <i>Mathematics</i>: graphical models, statistics, probability theory, number theory, and mathematical logic.</p>
Education	<p>Graduate student in Computer Science, University of California, Santa Cruz. Bachelor of Science in Computer Science with Highest Honors and Bachelor of Arts in Mathematics with Highest Honors, 2002. University of California, Santa Cruz, CA, USA.</p>
Selected Papers	<p>Krishna M. Roskin, Mark Diekhans, and David Haussler. "Scoring two-species local alignments to try to statistically separate neutrally evolving from selected DNA segments." In the <i>Proceedings of the Seventh Annual International Conference on Research in Computational Molecular Biology (RECOMB)</i>, April, 2003.</p> <p>Mouse Genome Sequencing Consortium. "Initial sequencing and comparative analysis of the mouse genome." <i>Nature</i> 420, 520-562 (2002).</p> <p>Ross Hardison, Krishna M. Roskin et al. "Co-variation in frequencies of substitution, deletion, transposition and recombination during eutherian evolution." <i>Genome Research</i>, 2003 13: 13-26.</p> <p>W. James Kent, Charles W. Sugnet, Terrence S. Furey, Krishna M. Roskin, Tom H. Pringle, Alan M. Zahler, and David Haussler. "The human genome browser at UCSC." <i>Genome Research</i>, 2002 Jun, 12(6):996-1006.</p> <p>Suresh K. Lodha, Ellen Venable, David Marsh, Nguyet Manh, Doanna Meads, Casey Robinson, and Krishna M. Roskin. "Use of Natural Sounds and Metaphors for Data mapping." In the <i>Proceedings of the SPIE Conference on Visual Data Exploration and Analysis</i>, San Jose, CA, January, 2001.</p> <p>Suresh Kumar Lodha, Jose C. Renteria, and Krishna M. Roskin. "Topology Preserving Compression of 2D Vector Fields." In the <i>Proceedings of IEEE Visualization 2000 Conference</i>, Salt Lake City, UT, October 2000.</p>
Experience	<p>Jun. 2001 — Sep. 2002 <i>Staff Researcher</i>, Center for Biomolecular Science and Engineering, University of California, Santa Cruz, CA, USA. Worked on UCSC's contribution to the International Human Genome Mapping Consortium, a crucial component of the Human Genome Project.</p> <p>Mar. 2001 — Jun. 2001 <i>Course Assistant</i>, Computer Science Department, University of California, Santa Cruz, CA, USA. Was the teaching assistant for a class on the analysis of algorithms consisting of over ninety students. Ran five discussion sections a week, created solution sets to weekly homeworks, and gave review sections.</p> <p>Jun. 1999 — Jun. 2001 <i>Undergraduate Student Researcher</i>, Computer Science Department, University of California, Santa Cruz, CA, USA. As part of a research group in the Advanced Visualization and Interactive System laboratory, developed algorithms for scalar and vector topology extraction and visualization and created interactive user interfaces for topology visualization.</p>
Awards	<p><i>Howard Hughes Medical Institute Fellow in the Biological Sciences</i>, Howard Hughes Medical Institute, 2003.</p> <p><i>National Science Foundation Graduate Research Fellowship (declined)</i>, National Science Foundation, 2003.</p> <p><i>Huffman Prize</i>, School of Engineering, University of California, Santa Cruz, May 2002.</p> <p><i>Dean's Award</i>, (May 2001 and 2002) and <i>Chancellor's Award</i> (May 2002) School of Engineering, University of California, Santa Cruz.</p> <p><i>Barry M. Goldwater Scholar</i>, Barry M. Goldwater Scholarship and Excellence in Education Foundation, April 2001.</p>