

Dennis Shasha, Ph.D
Professor of Computer Science

Department of Computer Sciences, New York University
715 Broadway, New York, NY 10003
Tel. 212-998-3086; e-mail: shasha@cs.nyu.edu

PROFESSIONAL PREPARATION

Yale University	Engineering and Applied Science	B.S.	1977
Syracuse University	Computer Science	M.S.	1980
Harvard University	Applied Mathematics	Ph.D	1984

APPOINTMENTS

1993-Present Co-Editor-in-Chief (with Matthias Jarke) of *Information Systems*
Publisher: Elsevier North Holland

1984-Present Assistant Professor, Associate Professor, and Full Professor of Computer
Science, Courant Institute of Mathematical Sciences, New York University

PUBLICATIONS

Five Publications Directly Relevant to the Proposal

1. "cis Element/Transcription Factor Analysis (cis/TF): A Method for Discovering Transcription Factor/ cis Element Relationships" Kenneth Birnbaum, Philip N. Benfey, and **Dennis E. Shasha** *Genome Res.* 2001 11: 1567-1573.
2. "Using Combinatorial Design to Study Regulation by Multiple Input Signals. A Tool for Parsimony in the Post-Genomics Era" **Dennis Shasha**, Andrei Kouranov, Laurence Lejay, Michael Chou, and Gloria Coruzi, *Plant Physiology*, Dec. 2001, 127(4):1590-1594
3. *Pattern Discovery in Biomolecular Data: Tools, Techniques, and Applications*, (with J. T. L. Wang and B. A. Shapiro), editors, Oxford University Press, New York, NY, 1999.
4. <http://cs.nyu.edu/cs/faculty/shasha/papers/treesearch.html>, software to support tree and graph searching and clustering.
5. "A gene expression map of the Arabidopsis root" Kenneth Birnbaum, Dennis E. Shasha, Jean Y. Wang, Jee W. Jung, Georgina M. Lambert, David W. Galbraith, and Philip N. Benfey *Science*, Dec 12 2003: 1956-1960

Five Other Significant Publications

1. "Antipole Tree Indexing to Support Range Search and K-Nearest Neighbor Search in Metric Spaces" Domenico Cantone, Alfredo Ferro, Alfredo Pulvirenti, Diego

Reforgiata, **Dennis Shasha** *IEEE Transactions on Knowledge and Data Engineering*, to appear

2. **Dennis Shasha**, Y. Yang, K. Zhang, X. Wang and J. T. L. Wang. "An Approximate Oracle for Distance in Metric Spaces" *In Combinatorial Pattern Matching*, M. Farach, ed., Lecture Notes in Computer Science, Springer-Verlag, 1998, pp. 104-117.
3. Jason T. L. Wang, Steve Rozen, Bruce A. Shapiro, **Dennis Shasha**, Zhiyuan Wang and Maisheng Yin. "New Techniques for DNA Sequence Classification" *Journal of Computational Biology*, Vol. 6, No. 2, 1999, pp. 209-218.
4. **Dennis Shasha** and Philippe Bonnet. *Database Tuning: Principles Experiments and Troubleshooting Techniques*, Morgan Kaufmann Publishers, June 2002, ISBN 1-55860-753-6, Paper, 464 Pages.
5. Mitchell Levesque, **Dennis Shasha**, Wook Kim, Michael G. Surette, and Philip N. Benfey. "Trait-To-Gene: A Computational Method for Predicting the Function of Uncharacterized Genes" *Current Biology*, vol. 13, 129-133, January 21, 2003.

SYNERGISTIC ACTIVITIES

Puzzle Columnist, *Scientific American* (currently web) and *Dr. Dobb's Journal*.

Teaching: Computers in Principles and Practice, Distributed Computing, Advanced Database Systems.

New York Hall of Science: scientific exhibitions advisor

COLLABORATORS & OTHER AFFILIATIONS

Collaborators:

Michael Rabin, Charles Cantor, David Botstein, Lee Hood, Raju Kucherlapati, Michael Ashburner, and Minoru Kanehisa.

Graduate and Postdoctoral Advisors:

Nathan Goodman

Graduate Advisees:

Kaizhong Zhang (Professor University of Western Ontario, Canada); Theodore Johnson (Researcher AT&T Laboratories); Jose Perez-Carballo (Assistant Professor at Rutgers, New Brunswick); Jason Tsong-Li Wang (Tenured Associate Professor at the New Jersey Institute of Technology, Newark); Vladimir Lanin (Member of Technical Staff at a startup company), Brian Anderson (Member of Technical Staff at a startup company in California), John Turek (Researcher at IBM in Texas, Austin), Steve Rozen (Research Scientist at the Whitehead Institute, MIT), Gilad Koren (Professor at Natanyu College, Israel), Karpjoo Jeong (Assistant Professor at Konkuk University, Korea), Bin Li (Vice President at Citibank, New York), Peter Wyckof (Research Scientist at Telcordia Research), Peter Piatko (Research Scientist at Telcordia Research), David Tanzer (Queryable Expert Systems, start-up), Rosalba Giugno (Professor Universita di Catania), Alberto Lerner (Researcher, IBM), Yunyue Zhu (Computational finance)