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Courant Institute of Mathematical Sciences

**EDUCATION:**

Yale University B.S. Engineering & Applied Science 1977

Syracuse University M.S. Computer Science 1980

Harvard University Ph.D. Applied Mathematics 1984

**APPOINTMENTS:**

1995 - Present Full Professor, Courant Institute of Mathematical Sciences, New York University

1990 - 1995 Associate Professor, Courant Institute of Mathematical Sciences, New York University

1984 - 1990 Assistant Professor, Courant Institute of Mathematical Sciences, New York University

1993 - Present Co-Editor-in-Chief (with Gottfried Vossen) of Information Systems, Publisher: Elsevier North Holland

2006 - 2007 Invited Professor, INRIA, Roquencourt, France

1998 - 1999 Invited Professor, INRIA, Roquencourt, France

1992 - 1993 Invited Professor, INRIA, Roquencourt, France

**5 PUBLICATIONS RELATED TO THIS PROPOSAL:**

Krouk G, Mirowski P, LeCun Y, Shasha D and Coruzzi G (2010) “Predictive network modeling of the

high-resolution dynamic plant transcriptome in response to nitrate.” ***Genome Biology,*** 11(12):

R123.

Katari MS, Nowicki SD, Aceituno FF, Nero D, Kelfer J, Thompson LP, Cabello JM, Davidson RS, Goldberg AP, Shasha DE, Coruzzi GM, and Gutierrez RA (2009) "VirtualPlant: a software platform to support system biology research" ***Plant Physiology*** 152 (2):500-515

Krouk G, Tranchina D, Lejay L, Cruikshank A, Shasha D, Coruzzi G, Gutierrez R (2009) ‘’ A systems approach uncovers restrictions for signal interactions regulating genome-wide responses to nutritional cues in Arabidopsis. ‘' ***PloS Comp Biol,.***5(3):e1000326. (Highly Accessed).

Cui X, Vinar T, Brejova B, Shasha D, Li M (2007) "Homology search for genes," ***Bioinformatics***.

23 (13):i97-i103

Regorgiato D, Gutierrez R, and Shasha D (2008) “GraphClust: A Method for Clustering Databases of Graphs” ***Journal of Information and Knowledge Management (JIKM)***, 7(4):231 – 241.

# 5 OTHER SIGNIFICANT PUBLICATIONS:

Chen HW, Bandyopadhyay S, Shasha DE, and Birnbaum KD (2010)``Estimation of genome-wide redundancy in Arabidopsis thaliana.” ***BMC Evolutionary Biology***, 10:357; doi:10.1186/1471-2148-10-357.

Poultney CS, Gutirrez RA, Katari MS, Gifford ML, Paley WB, Coruzzi GM and Shasha DE (2006) “Sungear: Interactive visualization and functional analysis of genomic datasets" ***Bioinformatics***, 23(2):259-61, doi:10.1093/bioinformatics/btl496.

Birnbaum K, Shasha DE, Wang JY, Jung JW, Lambert GM, Galbraith DW and Benfey PN (2003) "A gene expression map of the Arabidopsis root" ***Science***, 302(5652):1956-1960
doi: 10.1126/science.1090022

Shasha D and Bonnet P (2002) *Database Tuning: Principles Experiments and Troubleshooting Techniques*, **Morgan Kaufmann Publishers**, ISBN 1-55860-753-6, Paper, 464 Pages.

Chang J and Shasha D (2011) *Stored Clocked Programs Inside DNA: a simplifying framework for Nanocomputing,* **Morgan and Claypool**, 66 pages

# SYNERGISTIC ACTIVITIES:

Database tuning and design consulting for internet companies, Bell Labs, ecommerce, and biotech companies (drug discovery), 1991-Present

Distinguished Science Advisor, New York Hall of Science (one of 20), 2003-Present

# COLLABORATORS:

I have collaborated with the following people during the last 48 months (or may collaborate with them due to a series editorship at Oxford for Genomics and Bioinformatics) in addition to those listed in the publications list: Michael Ashburner, David Botstein, Charles Cantor, Lee Hood, Minoru Kanehisa, Raju Kucherlapati, Gary Bader, Isidore Rigoutsos, Gregory Stephanopoulos, Martyn Amos, and Michael Rabin.

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Zhihua Wang (Ask.com)

Tyler Neylon (Google research)

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