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Education and Training

1995 - 1998 Tel Aviv University, Tel Aviv, Israel B.A. Comp. Sci. & Phil.
1999 - 2004 Stanford University, Stanford, CA Ph.D. Comp. Sci.

Research / Employment Experience

2004 - Dept. of Bioengineering, UC Berkeley Postdoctoral fellow
Simulation of protein-protein association

2000 - 2004 Robotics Lab, Stanford University Research Assistant
Development of efficient algorithms for Structural Biology and Protein X-ray Crystallography

1999 - 2000 Computer Vision Lab, Stanford University Research Assistant
Initialization of articulated models for tracking human figures in video sequences.

2000 Intel Corp., Santa Clara, CA Summer Intern
Implementation of a structure from motion algorithm for Intel's Open Source Computer Vision Library

1997 - 1999 Tecnomatix Ltd., Hertzelia, Israel Software Engineer
Development of a new MS Windows framework for the company's suite of application

Professional Activities

2002 - 2004 Reviewed papers for *Protein Science*, *Bioinformatics*, *J. of Computational Chemistry* and *IEEE Computer Society Bioinformatics Conference*.

References

Jean-Claude Latombe Computer Science Dept., latombe@cs.stanford.edu
Stanford University

Leonidas J. Guibas Computer Science Dept., guibas@cs.stanford.edu
Stanford University

Teresa L. Head-Gordon Bioengineering Dept. TLHead-Gordon@lbl.gov
U.C. Berkeley

Vijay Pande	Chemistry and Structural Biology Depts., Stanford University	pande@stanford.edu
Michael Levitt	Structural Biology Dept., Stanford University	michael.levitt@stanford.edu

Publications

Journal Articles

1. I. Lotan, F. Schwarzer, D. Halperin and J.-C Latombe. **Algorithm and Data Structures for Efficient Energy Maintenance during Monte Carlo Simulation of Proteins.** *J. of Computational Biology*. 11(5):902-932, 2004
2. I. Lotan and F. Schwarzer. **Approximation of Protein Structure for Fast Similarity Measures.** *J. of Computational Biology*. 11(2-3):299-317, 2004.
3. H. van den Bedem, I. Lotan, J.-C. Latombe and A. M. Deacon. **Automated Protein Model Completion: an Inverse Kinematics Approach.** *Acta Cryst. D61*, 2-13

Refereed Conference Articles

1. Lotan, H. van den Bedem, A.M. Deacon and J.-C Latombe. **Computing Protein Structures from Electron Density Maps: The Missing Loop Problem.** *6th Workshop on Algorithmic Foundations of Robotics (WAFR '04)*
2. Lotan, F. Schwarzer and J.-C Latombe, **Efficient Energy Computation for Monte-Carlo Simulation of Proteins,** *Workshop on Algorithms for Bioinformatics (WABI '03)*, 2003
3. F. Schwarzer and I. Lotan. **Approximation of Protein Structure for Fast Similarity Measures.** *Proc. of Conference on Research in Computational Molecular Biology (RECOMB '03)*, 2003 pp 267-276
4. I. Lotan, F. Schwarzer, D. Halperin and J.-C Latombe. **Efficient Maintenance and Self-Collision Testing for Kinematic Chains.** *Proc. Symposium on Computational Geometry (SoCG '02)*, 2002 pp. 43-52
5. I. Lotan and N. Shavit. **Skiplist-Based Concurrent Priority Queues.** *International Parallel and Distributed Processing Symposium (IPDPS '00)*. 2000, pp. 263-268

In Preparation

1. **An Analytical Electrostatic Model for Salt-Screened Interactions between Multiple Protein.** With T. Head-Gordon

Awards:

- 2005 Arthur L. Samuel Award for best Ph.D. thesis in the Computer Science Department, Stanford University.
- 2003 Siebel Scholar fellowship.
- 1999 School of Engineering Graduate Fellowship, Stanford University
- 1995-1998 3 time recipient of the Dean of the Faculty of Exact Sciences Academic Achievement scholarship. Tel Aviv University