Guy Yosiphon, Ph.D.

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Objective

Develop innovative software for large scale & wide impact applications.

Professional Experience

- Senior R&D Scientist, UtopiaCompression Corporation (March 2009 – present)
  - Fully developed health monitoring software. Implemented classification, filtering and analysis of continuous physiological signals in real time. HMM models training from physiological datasets. Software includes interactive GUI, distributed processing, and integration with hardware devices. Developed in C++ / QT4.
  - Secured extension funding from DHS ($200k) for the health monitoring product's research & development.
  - Awarded funding ($100k) for DoD SBIR Phase I proposal, entitled "Reactive Planning Framework for Spacecraft assembly". The proposed solution is a novel automated planning software to robustly handle plan repairs due to unexpected events. Details on www.winmda.com
- Research Assistant, Computer Science Department, University of California, Irvine (January 2004 – March 2009)
  - Design and implementation of "Plenum" - A Dynamical Grammar interpreter/simulator.
  - Developed a parameter inference software for stochastic models (using sampling techniques).
  - Developed computational models and simulations for: root development, stem cells niche, and image analysis.
  - Designed a web-crawler application for information extraction.
- Programmer/Project Manager, AVT (Advanced Vision Technology) Hod Hashron, Israel (June 2001 – September 2002)
  - Implemented the Pregister application, an automatic setup of the printing machine by image analysis.
- Programmer/Team Leader, Ucmore (currently www.conduit.com) - startup company, Herzelia, Israel (March 2000 – April 2001)
  - Developed the application server, including a caching component for fast retrieval of url related information. Implemented in C++, Visual C++.
  - Designed the Server to Database connector component.
- Programmer, Amdocs, Raanana, Israel (August 1999 – March 2000)
  - Software development in the Billing products.
  - Recipient of Amdocs student scholarship.

Education

University of California, Irvine

- Ph.D., School of Information and Computer Science (Graduation date: June 2009)
  - Thesis Title: Stochastic Parameterized Grammars: Formalization, Inference and Modeling Applications
  - Advisor: Professor Eric Mjolsness

- Area of Study: Computational modeling and Machine Learning
- Current GPA - 3.98/4

- M.S., School of Information and Computer Science ,2005
  - Area of Study: Artificial Intelligence/Machine Learning
  - Inference algorithms for Bayesian and constraint networks
  - Graduate Research Fellowship 2002-2003
  - GPA - 3.96/4

Tel Aviv Academic College, Israel

B.Sc., Computer Science Department, March 2000

- Scholarship for outstanding achievements in studies (1998,1999)
- GPA - 89%

Publications

- Eric Mjolsness and Guy Yosiphon (2006, August)
  Stochastic Process Semantics for Dynamical Grammars. Annals of Mathematics and Artificial Intelligence, 47(3-4), 329-395.
- Guy Yosiphon and Eric Mjolsness (2009)
  Towards the Inference of Stochastic Biochemical Network and Parameterized Grammar Models, N. Lawrence, et al., ed., Learning and Inference in Computational Systems Biology.
- Guy Yosiphon, Kimberly K. Gokoffski, Anne L. Calof, Arthur D. Lander and Eric Mjolsness (2007)
  Stochastic Multiscale Modeling Methods for Stem Cell Niches. Machine Learning in Computational Biology workshop (NIPS-MLCB).
- Guy Yosiphon (2006)
  Automated Galaxy Morphology using Stochastic Parameterized Grammar. Second International Conference on Space Mission Challenges For Information Technology (SMC-IT 2006)
- Guy Yosiphon, Kimberly K. Gokoffski, Anne L. Calof, Arthur D. Lander and Eric Mjolsness (2007)
  Dynamical Grammar Modeling of Cellular Proliferative Dynamics in the Olfactory Epithelium. The 8th International Conference on Systems Biology, 2007.

Teaching experience

- Teaching Assistant, Computer Science Department, University of California, Irvine (2003): "Project in Artificial Intelligence", "Data Structures", and "Introduction to Computer Science 2".

Professional activities

- Journal reviewing: *Artificial Intelligence* journal (AIJ), *Journal of Artificial Intelligence Research* (JAIR).
- Conference reviewing: *10th International Conference on Principles and Practice of Constraint Programming* (CP 2004), *16th European Conference on Artificial Intelligence* (ECAI 2004), *9th International Conference on the Principles of Knowledge Representation and Reasoning* (KR 2004)

Programming Skills

C++, QT, Visual C++, Mathematica, Matlab, Octave.
Foundational level - Perl & Python. Need to refresh - Java & SQL.
Platforms - Linux & Windows.