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Education

Master of Science (Computer Science)

Nov, 2009

University of British Columbia, Vancouver (UBC)

Percentage: 87

GPA: 3.95/4

Master's Thesis Topic: "[SATenstein: Automatically Building Local Search SAT Solvers From Components](#)"

Bachelor of Technology (Computer Science and Engineering)

July, 2005

West Bengal University of Technology

GPA: 9.28/10

Ranked 2nd in Computer Science Department (top 0.2 percent)

B.Tech Thesis Topic: "Quantum Dot Cellular Automata"

Relevant Coursework

Artificial Intelligence, Multi Agent Systems, Data Management, Machine Learning, Data Mining, Complexity of Computation and Empirical Algorithms.

Relevant Course Projects

- "[A Survey on Supermodular Games](#)": A survey work that explored various interesting properties of the solution concepts of supermodular games, a special class of games that exhibit strategic complementarity.
- "A Survey of Query by Humming Databases": A survey that explored various research directions of content-based search of music.
- "A Comparative Study of Clustering Techniques": A comparative analysis of two high-performance clustering algorithms. .
- "Clustering Music Files": An original work in which we created a weighted distance feature based on various note patterns. We used this distance feature to cluster Indian classical music. Our preliminary results were encouraging as we were able to successfully cluster songs belonging to the same 'Raga' (genre)..
- "Automated Parameter Tuning": An original work in which we used a machine learning approach to learn good parameter settings of a given algorithm for a given problem distribution. We chose Local Search / Satisfiability as our algorithm /problem pair and showed that our technique gives competitive performance against existing reactive mechanisms.
- "Exploring the strategy space of adaptG²WSAT". This work is in the same line as my masters' thesis that explores a novel algorithm design technique. In this approach, instead of discarding any possible design choice for a given algorithm at the design phase, we introduce categorical parameters expressing design choices and established a 1:1 mapping between the parameter space and the design space. The resulting generalized, highly parameterized algorithm is then tuned by using an existing automated parameter tuning tool on a given problem distribution. Our results showed that algorithms obtained using our approach were able to outperform existing state-of-the-art algorithms.

Programming Languages Known

C, C++, C#, Ruby and Perl.

Publication

- "[SATenstein: Automatically Building Local Search SAT Solvers From Components](#)". A.R. KhudaBukhsh, L. Xu, H.H. Hoos, K. Leyton-Brown. International Joint Conference on Artificial Intelligence (IJCAI), July 2009
- "Design of an XOR gate With Quantum- Dot Cellular Automata (QCA)". S.Roy, S.Mahinder, A.R.KhudaBukhsh in International Conference on Nanostructure, Nanoelectronics, and Carrier Interaction, Hon Atsugi, Japan, 2005 (Poster).

Awards and Honors

- Received International Partial Tuition Scholarship and full assistanship for pursuing M.Sc (Master of Science) in Computer Science, in University of British Columbia (2006).
- Received University Graduate Fellow (UGF) award from EECS department, Vanderbilt University (2006). (declined)
- Received MHRD (Ministry of Human Resource Development) Scholarship for pursuing M.E (Master of Engineering) in Internet Science in Indian Institute of Science, Bangalore (2006). (declined)
- Received MHRD (Ministry of Human Resource Development) Scholarship for pursuing M.E (Master of Engineering) in Computer Science in Indian Institute of Technology, Bombay (2006). (declined)
- Ranked 55 among 22,393 participants in GATE (Graduate Aptitude Test in Engineering, a nationwide technical examination conducted by IITs and IISc) (2006).
- Received appreciation and silver medal from Governor of West Bengal for standing second in Computer Science Department of West Bengal University of Technology (2006).
- Received national merit scholarship for ranking 21st among four hundred thousand students (approx.) in the Higher Secondary Examination of West Bengal, India (2001).
- Received state government award and national merit scholarship for ranking 12th among six hundred thousand students (approx.) in the Secondary Examination of Of West Bengal, India (1999).

Professional Experience

- From Feb 2009 to till date, working as an fulltime SDE (Software Development Engineer) in Microsoft Corporation, Redmond, USA.
- Project alumni of "[Automated Design of Heuristic Algorithms From Components](#)": an ongoing collaboration between University of British Columbia and [Actenum Corporation](#).
- From Jun 2007 to Aug 2007, worked as an SDE (Software Development Engineer) Intern in Microsoft Corporation, Redmond, USA.
- From Jan 2006 to Jul 2006, worked as a Programmer Analyst Trainee in Cognizant Technology Solutions, India.

Teaching Experience

- From Sept 2008 to Dec 2008, TA for CS 221 (Basic Algorithms and Data Structures)
- From Sept 2007 to June 2008, TA for CS 322 (Artificial Intelligence, twice) and CS 221 (Basic Algorithms and Data Structures).
- From Sept 2006 to April 2007, TA for CS 322 (Artificial Intelligence) and CS 221 (Basic Algorithms and Data Structures).
- From Aug 2005 to Dec 2005, visiting faculty member in Computer Science Department, Kalyani Govt. Engineering College. Taught Artificial Intelligence (CS702) and instructed the associated lab (CS 792).

Extra Curricular Activities

- Composer (portfolio: <http://people.cs.ubc.ca/~ashiqur/composition.html>), song-writer, lead guitarist and support vocalist of Algo-Rhythm, a fusion band comprising Computer Science graduate students at UBC. We performed our own songs in many city events and school events.
- Writing poems (many have been published in noted little magazines and online magazines).
- Playing Ping-Pong and Badminton (runner-up in the doubles Badminton championship at Computer Science Department, UBC)