Curriculum Vitae

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Contact Details:
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Current Status : Senior postdoctoral research fellow at ETH, Zurich.
Homepage   : http://www.translationalneuromodeling.org/team/dr-sudhir-shankar-raman/
Linkedin   : http://ch.linkedin.com/pub/sudhir-shankar-raman/4/7a3/66b

Summary:

- Postdoc in Machine Learning applied to neuroscience, at the TNU, ETH, Zurich, Switzerland.
- PhD thesis (Machine Learning) titled "Bayesian Grouped Variable Selection" involved building an omnibus Bayesian framework for sparse regression over grouped variables.
- Dual Masters degree holder in Machine Learning and Computer Applications.
- 6+ years software industry experience at Infosys Technologies and Grapecity India, with projects mostly involving Microsoft technologies.
- Participated in the World Puzzle Championship 2005, and World Sudoku championship 2006, as a member of the Indian team.

Research Details:

During my PhD and Postdoc research, I have been exposed to a variety of machine learning techniques including Bayesian inference, MCMC sampling, Variational Bayes, SVM, Gaussian processes, Deep Learning, etc.

My Postdoctoral research involves extensions to a dynamic causal model framework for the analysis of fMRI and EEG data from the human brain. The inference involves Bayesian methods like variational Bayes and MCMC sampling. Additional challenges involve devising scalable algorithms for large-scale inference.

My PhD thesis work involved building an omnibus Bayesian framework for grouped variable selection. This work has been applied to various biological applications like bio-marker detection in breast cancer, splice site analysis in human DNA and survival analysis for breast cancer patients.

Academic Qualifications:

Phd – Machine Learning (Dec 2007 – May 2012) – Magna cum laude
University of Basel, Switzerland

MSc – Machine Learning (Sept 2006- Aug 2007) - Distinction
University College London, London, UK

Masters in Computer Applications (1997-2000)
Jawaharlal Nehru University, New Delhi, India

BSc – Mathematics (1994-1997)
St. Stephen's College, New Delhi, India

Industry Experience (6+ yrs):

Infosys Technologies Ltd (August 2002 – February 2006)
- Clients: Chico's, Target, The Knot, Amazon.
- 3 months project for The Knot in New York, US.
- 1 year project with Target Corporation in Minneapolis, US.

Grapecity India Ltd (January 2000- July 2002)
- Overall 1yr in Xian,China for various cutting edge in-house projects.

Publications:

See HOMEPAGE: http://www.translationalneuromodeling.org/team/dr-sudhir-shankar-raman/

Tools/Skills:

Languages   : C++, Java, C#, SQL, .NET framework, javascript, HTML
Statistical tools : Matlab, R
Others   : GIT (Source Control)

Activities/Interests:

Puzzle Solving:
- Participated in the World puzzle championship 2005
  - http://logicmastersindia.com/home/?g=indiaWPC
- Participated in the World Sudoku championship 2006.
  - http://logicmastersindia.com/home/?g=indiaWSC