

# ADITYA KURVE

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**OBJECTIVE** Seeking internship position for Summer 2012 and full-time position starting Jan 2013.

**EDUCATION** The Pennsylvania State University, University Park, PA  
Doctorate in Electrical Engineering (Expected in Dec 2012) GPA 3.78

The Pennsylvania State University, University Park, PA  
M.S. in Electrical Engineering (2009 to 2011) GPA 3.78

University of Pune, India  
Bachelor of Engineering in Electronics (2002 to 2006)

## RESEARCH PROJECTS

### AREAS OF INTEREST :

Distributed Systems ◆ Algorithm Design ◆ Reputation Systems ◆ Game Theory ◆  
Social Networks ◆ Optimization ◆ Networking ◆ Communication Systems ◆

### **Sybil Detection in P2P and Social Networks**

- ◆ Aditya Kurve and George Kesidis, *Sybil Detection via Distributed Sparse Cut Monitoring*, Proc. IEEE International Conference on Communications, ICC'11, Kyoto, Japan, June 2011.

### **Unsupervised Inference Schemes for Crowdsourcing**

- ◆ George Kesidis and Aditya Kurve, *A Study of Unsupervised Adaptive Crowdsourcing*, to appear in Proc. IEEE International Conference on Communications, ICC'12, Ottawa, June 2012.
- ◆ Aditya Kurve, David Miller and George Kesidis, *Objective-based Approach to Unsupervised Inference Schemes for Crowdsourcing*, in preparation.

### **Inferring Community Structures in Social Networks**

In progress. This project involves experimental analysis and implementation of search mechanisms for inference of community structure via keyword search in distributed social networking platform Diaspora. Involves hands on experience with Ruby on Rails.

### **Game Theoretic Approach for Load Balancing in Distributed Systems**

- ◆ Aditya Kurve, Christopher Griffin and George Kesidis, *Iterative Partitioning Scheme for Distributed Simulation of Dynamic Networks*, Proc. IEEE International Workshop on Computer Aided Modeling, Analysis and Design of Communication Links and Networks (CAMAD), Kyoto, Japan, June 2011.
- ◆ Aditya Kurve, Christopher Griffin and George Kesidis, *A Graph Partitioning Game for Distributed Simulation of Networks*, Proc. International Workshop on modeling, analysis and control of complex networks (CNET), San Francisco, USA, September 2011.
- ◆ Aditya Kurve, Christopher Griffin, David Miller and George Kesidis, *Game Theoretic Iterative Partitioning for Dynamic Load Balancing in Distributed Network Simulation*, submitted to ACM Transactions on Modeling and Computer

Simulation (TOMACS), October 2011.

**Distributed Capacity Reallocation of Probabilistic Network Model**

- ◆ Aditya Kurve, Guodong Pang, George Kesidis and Gustavo De Veciana, *Decentralized Capacity Reallocation for a Loss Network*, to appear in Proc. Conference on Information Science and Systems, Princeton, Invited Paper in Optimization of Communication Networks.

**WORK EXPERIENCE**

**SASKEN COMMUNICATION TECHNOLOGIES, Pune.** Dec 2008 to Jul 2009  
**Embedded Software Engineer**

- ◆ Worked on Board Support Library for PNX1005 media processing SOC.
- ◆ Automated software testing using Perl script.
- ◆ Prepared ramp up training plan and presentations for fresh recruits.

**CONEXANT SYSTEMS Inc, Pune.** Jun 2006 to Nov 2007

**Hardware Design Engineer**

Front end VLSI Design and functional verification.

- ◆ Worked on baseband PHY processor for 802.11n solution.
- ◆ Analyzed algorithms for pilot processor and stream parser and implemented in Verilog.

**SASKEN COMMUNICATION TECHNOLOGIES, Pune.** Nov 2007 to Dec 2008

**Hardware Verification Engineer**

- ◆ Verification Of Mixed Signal SOC MSP430.
- ◆ RTL and gate level verification of Frequency Locked Loop, Real Time Clock, Basic Timer and I/O Ports.

**COURSEWORK**

Software Engineering, Data Structures, Neural Networks and Machine Learning, Nonlinear Programming, Dynamic Programming, Game Theory, Probability, Operating Systems, Digital Architecture, Linear Control Systems, Digital Communication Systems, Wireless Communication, Information Theory, Digital Signal Processing.

**TOOLS**

C, NetLogo, Matlab, VHDL, Verilog, assembly language (MSP430 Family), Simvision, Synopsis Design Compiler, Cross Studio.

**ACHIEVEMENTS AND HONORS**

- ◆ Sasken Team of the Quarter Award: Apr-Jun 2008 for outstanding customer satisfaction.
- ◆ Served as the President of Penn State Vedic Society Aug-Dec 2011.

**REFERENCES**

Available upon request.