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**Nikhil G Shetty**  
**Doctoral Candidate**  
**Department of Electrical Engineering and Computer Science**  
**University of California Berkeley**  
**Address: 1922 Virginia Street, Apt #12**  
**Berkeley CA-94709**  
**Email: nikhils[AT]eecs.berkeley.edu**  
**Ph: 510 684 0885**

### Education

- Currently pursuing a PhD in Electrical Engineering at UC Berkeley.
- Masters of Science in Electrical Engineering, December 2007, UC Berkeley, Berkeley, CA, USA. GPA: 3.919/4.000.
- Bachelor of Technology in Electrical Engineering, August 2005, IIT Bombay, Mumbai, India. GPA: 9.75/10.00.

### Research Interests

Economic and game theoretic aspects of networking, Economic aspects of network and information security and privacy, Adoption of new Internet architectures, Improving network analysis using mathematical tools.

### Current Projects

- **Economics of FemtoCells** *with Dr. Shyam Parekh and Prof. Jean Walrand.* – Impact of economic aspects on pricing and adoption of femtocells under a new interference management paradigm for cellular networks.
- **Techno-economic Solutions for QoS and the Network Neutrality Impasse** *with Dr. Galina Schwartz and Prof Jean Walrand.* – Technical implementations improving incentives for ISPs to invest in network upgrade based on economic models of investment.
- **Economics of Network Security** *with Dr. Galina Schwartz, Dr. Mark Felegyhazi and Prof. Jean Walrand.* – Looking at economic solutions for underinvestment arising due to free-riding problems in network security. Research into the liability and accountability structure of current Internet and possible improvements.
- **A Novel Approach to Bottleneck Analysis in Networks** *with Assane Gueye and Prof Jean Walrand.* – Creating mathematical tools, using statistical analysis, to improve characterization of network performance.

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### Work Experience

- Intern with *Alcatel-Lucent* – Research into economic aspects of femtocell adoption for WiMAX networks.
- Intern at *Cisco* – Involved in optimizing routing table convergence for BGP on the 7600 series router, resulting in 30% improvement. [Technology: C, Perl]
- Consultant at *Innoviti*, a wireless startup in Bangalore – Worked on the concept of an USB FM Radio, resulting in a **patent application**. [Technology: C]
- Intern at *Infineon* India – Worked on their IP Phone Project as a project trainee for a period of two months. [Technology: C, C++]

### Technical Skills

Proficient in **MATLAB, C** with project implementation experiences both in-course and on-job. Also took up some **Perl** coding at Cisco in Summer 2006.

### Publications

- **Impact of QoS on Internet User Welfare** Nikhil Shetty, Galina Schwartz and Jean Walrand. Submitted to *4th International Workshop On Internet And Network Economics (WINE 2008)*. December 17-20, 2008. Shanghai, China.
- **Network Neutrality: Avoiding the Extremes** Nikhil Shetty, Galina Schwartz and Jean Walrand. To appear in *Forty-sixth Annual Allerton Conference 2008*. September 23-26, 2008. Champaign-Urbana, IL, USA.
- **Modeling the Adoption of new Network Architectures** Dilip Joseph, Nikhil Shetty, John Chuang and Ion Stoica. *3<sup>rd</sup> International Conference on emerging Networking EXperiments and Technologies (CoNEXT'07)*, December 10-13, 2007, New York, NY, U.S.A.
- **A Novel Approach to Bottleneck Analysis in Networks** Nikhil Shetty, Assane Gueye and Jean Walrand. *IEEE NOMS 2008*. April 7-11, 2008. Salvador da Bahia, Bahia, Brazil.

### Academic Honors and Achievements

- **Vodafone Fellow:** Recipient of the prestigious Vodafone Fellowship at UC Berkeley from 2005-2007
- **Electrical BTech. Topper: Topped** the BTech Electrical Engineering batch of IIT Bombay with a CPI of 9.75/10.00 resulting in the presentation of the prestigious Institute Silver Medal.
- **AIR 73:** Stood **73rd** in the IIT Joint Entrance Examination 2001 in which more than 150,000 students appeared from all over India.
- **INPhO Gold Medal:** Was placed among the **top 30** students at the Indian National Physics Olympiad.
- **INChO:** Was placed among the **top 100** at the Indian Chemistry Olympiad.
- **NTS Scholar:** Was awarded National Talent Search scholarship in India that is given to the **top 750** students for **potential** in their respective areas.