

Prantik Bhattacharyya

CONTACT INFORMATION

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RESEARCH INTERESTS

Online Social Networks, Social Network Architectures, User Semantic Analysis, Decentralized Search, Social Search Engines, Online Communities, User Security and Privacy, Game Development APIs.

EDUCATION

University of California, Davis, Davis, California, USA

Ph.D. Candidate, Computer Science, September 2007 - present
(expected graduation date: June 2011)

- Adviser: Dr. S. (Shyhtsun) Felix Wu

Jadavpur University, Kolkata, West Bengal, India

B.E., Computer Science and Engineering, 2003 - 2007

PUBLICATIONS

- Ankush Garg, **Prantik Bhattacharyya**, Charles U. Martel, and S. Felix Wu. *Information Flow and Search in Unstructured Keyword based Social Networks*. In SMW '09: Proceedings of the Social Mobile Web Workshop, held in conjunction with the 2009 IEEE International Conference on Social Computing, Vancouver, Canada, August 2009.
- Thomas Tran, Kelcey Chan, Shaozhi Ye, **Prantik Bhattacharyya**, Ankush Garg, Xiaoming Lu, and S. Felix Wu. *Design and Implementation of Davis Social Links OSN Kernel*. In SNAS '09: Proceedings of the Workshop on Social Networks, Applications, and Systems, held in conjunction with the 2009 International Conference on Wireless Algorithms, Systems and Applications, Boston, Massachusetts, USA, August 2009.
- **Prantik Bhattacharyya**, Ankush Garg, and S. Felix Wu. *Social Network Model based on Keyword Categorization*. In ASONAM '09: Proceedings of the International Conference on Advances in Social Network Analysis and Mining, Athens, Greece, July 2009.
- Lerone Banks, **Prantik Bhattacharyya**, Mathew Spear, and S. Felix Wu. *Davis Social Links: Leveraging Social Networks for Future Internet Communication*. In FIST '09: Proceedings of the First International Workshop on Trust and Security in the Future Internet, held in conjunction with the 2009 Annual International Symposium on Applications and the Internet, Seattle, Washington, USA, July 2009.

PAPERS IN SUBMISSION

- **Prantik Bhattacharyya**, Ankush Garg, and S. Felix Wu. *Analysis of User Keyword Similarity in Online Social Networks*.

CONFERENCE PRESENTATIONS

- *Information Flow and Search in Unstructured Keyword based Social Networks*. In SMW '09: Social Mobile Web Workshop, Vancouver, Canada, August 2009.
- *Social Network Model based on Keyword Categorization*. In ASONAM '09: International Conference on Advances in Social Network Analysis and Mining, Athens, Greece, July 2009.

RESEARCH EXPERIENCE

Graduate Student Researcher

July, 2008 - Present

Security Lab under Prof. S. (Shyhtsun) Felix Wu
University of California, Davis
Davis, California, USA

Designed and implemented Davis Social Links, a keyword based social network architecture. Developed and validated a model to analyze the relationship between similarity of user keywords and social network topology. Currently, working towards development of algorithms for information search in social networks. My research is funded by National Science Foundation (NSF) Grant.

Project Member

February, 2006 - August, 2006

Hewlett Packard Labs,
Bangalore, Karnataka, India

Worked on the development of a tablet based keyboard, Gesture Keyboard (GKB), for Bengali language entry. The keyboard uses a pen-based interface for non-Roman scripts. Contributed in designing the keyboard layout and software development. The keyboard is intended for users spread across India and Bangladesh.

Student Researcher

2006 - 2007

Jadavpur University,
Kolkata, West Bengal, India

Implemented a Java based Graphical Tool for performance analysis of network protocols under simulation environments. Scope for increased graphical interaction with the simulating tool through interactive user interface was developed.

**GRADUATE COURSE
PROJECTS**

- Evaluated optimal node placement strategies to an already existing wireless mesh networks in ECS 289I, Advanced Topics in Wireless Communication Networks.
- Proposed a new Network Processor Architecture for processing IPv6 Packets in ECS 201A, Advanced Computer Architecture.
- Developed security model to reduce vulnerability caused by security breaks in remote crash reporting in ECS 235B, Foundations of Computer and Information Security.
- Developed mathematical model for improved Video on Demand (VoD) systems in ECS 256, Performance Evaluation.

**TEACHING
EXPERIENCE**

Teaching Assistant

October, 2007 - December, 2007

Basic Concepts of Computing under Dr. Nina Amenta
University of California, Davis
Davis, California, USA

Provided individual assistance to students during bi-weekly lab hours and led discussion sections. Graded programming assignments and exams.

**ACADEMIC
SERVICE**

External Reviewer

SocialCom-09: The 2009 IEEE International Conference on Social Computing.

**HONORS AND
AWARDS**

- Travel Grant Award to attend Sixth GENI Engineering Conference (GEC6) at Salt Lake City.
- University of California, Davis Fellowship, Winter Quarter 2008.
- University of California, Davis Non Resident Tuition Fellowship, Fall 2007 - Spring 2008.
- Merit Certificate in Mathematics, Junior Mathematics Olympiad, India, 2000.

ACADEMIC ACHIEVEMENTS

- Ranked in top 0.3% students among 40,000 students in state engineering entrance exam (WBJEE)
- Ranked in top 1.0% students among 170,000 students in Screening Exam of IIT Entrance Exam

MEMBERSHIP Student Member, Institute of Electrical and Electronics Engineers (IEEE) 2009 - Present

TECHNICAL SKILLS

- Proficient: Python, Java, C, MySQL, L^AT_EX
- Familiar: Perl, Javascript, Matlab, HTML

REFERENCE

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