

BHANU C. VATTIKONDA

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EDUCATION

- **University of California, San Diego (UCSD)**
 - Ph.D. in Computer Science and Engineering Sep 2009 – Present
 - M.S. in Computer Science and Engineering, GPA 3.9/4.0 Fall 2011
- **Indian Institute of Technology Kanpur**
 - B.Tech. in Computer Science and Engineering, GPA 8.8/10.0 Jul 2003 – May 2007

WORK EXPERIENCE

- **Microsoft, Mountain View, CA** Jul 2014 – Sep 2014
 - Summer Intern, Manager: Hongyan Zhou
Improved relevance ranker for sponsored search using knowledge from organic results. We achieved 1.3% improvement in precision-recall AUC over existing production system. We improved on these results after the internship and eventually achieved a 2.7% gain. An academic paper summarizing our results is currently under submission.
- **Microsoft Research, Bangalore, India** Jun 2013 – Sep 2013
 - Summer Intern, Manager: Saikat Guha
Worked on measuring effectiveness of sponsored search ads. The work led us to develop a new metric which allows us to capture incremental gains provided by search advertising campaigns. Using the metric we compared different advertising strategies. A paper describing the metric and our findings from comparing different advertising strategies is under submission.
- **Imperium Corporation (acquired by Google), Redwood City, CA** Jun 2012 – Sep 2012
 - Summer Intern, Manager: Cory O'Connor
Developed a Chrome based crawler to efficiently crawl web pages and then classified them using supervised machine learning techniques to identify malicious pages. We identified features that would best capture the quality of a web page.
- **LNM Institute of Information Technology, Jaipur, India** May 2009 – Jul 2009
 - Visiting Faculty, Director: Dheeraj Sanghi
Conducted a course on Fundamentals of Java and a course on Data Structures and Algorithms for first and second year undergraduate students.
- **Mckinsey & Company, Mumbai, India** Jul 2007 – Mar 2009
 - Business Analyst
Worked on building a health-care support services organization in Andhra Pradesh in India.
Created and institutionalized web-based performance tracking system at a leading public sector bank.

PUBLICATIONS

- **Interpreting Advertiser Intent in Sponsored Search**
Bhanu C. Vattikonda, Vacha Dave, Saikat Guha, Alex C. Snoeren.
Under submission.
- **Empirical Analysis of Search Advertising Strategies**
Bhanu C. Vattikonda, Vacha Dave, Saikat Guha, Alex C. Snoeren.
Under submission.
- **Scalable Coordination of a Tightly-Coupled Service in the Wide Area.**
Kevin C. Webb, Bhanu C. Vattikonda, Kenneth Yocum, Alex C. Snoeren.
TRIOS 2013.
- **Practical TDMA for Datacenter Ethernet.**
Bhanu C. Vattikonda, George Porter, Amin Vahdat, Alex C. Snoeren.
EuroSys 2012.
- **Eliminating Fine Grained Timers in Xen.**
Bhanu C. Vattikonda, Sambit Das, Hovav Shacham.
CCSW 2011.

RESEARCH INTERESTS

- Ad Relevance, Sponsored Search, Social Network Abuse, Network Protocols, Distributed Systems, Algorithms

ACADEMIC RESEARCH EXPERIENCE

- **Systems and Networking Group, UCSD** Sep 2009 – Present
Research in networks, ad relevance and distributed systems, under guidance of Alex C. Snoeren.
- **Prabhu Goel Research Center, IIT Kanpur** Jan 2006 – Apr 2007
Research in encrypted file systems under the guidance of Rajat Moona and Dheeraj Sanghi.

SELECTED PROJECTS

- **Understanding Touting Behavior on Twitter**
Millions of users use Twitter to exchange information and spammers try to exploit it for financial gain. I analyzed different strategies that are adopted by spammers on Twitter to make money through affiliate marketing. We found that accounts trying to monetize using affiliate links are either quickly suspended by Twitter or end up impacting very few users.
- **TransCrypt: A Secure and Transparent Encrypting File System for Enterprises**
The main project involved the design and implementation of an encrypted file system which is transparent to its users and handles an expanded threat model. My contribution involved implementing Public Key Infrastructure API and 1024 bit RSA, x.509 certificates in the Linux Kernel as an instance of the API.

TECHNICAL SKILLS

- **Excellent:** Python, C#, Microsoft Cosmos
- **Intermediate:** C, C++, Apache Pig
- **Basic:** Bash, R, Scala, Java, L^AT_EX, MongoDB, Cassandra, JavaScript

SYSTEM ADMINISTRATION

- To analyze the strategies of spammers on Twitter I used a cluster of 20 machines to collect data from Twitter, crawl web pages and collect click statistics from Bitly. Data was stored across HDFS, MongoDB and Cassandra. I set up and managed servers, and the Cassandra and MongoDB installations on them.

TEACHING EXPERIENCE

- Computer Communication Networks (Graduate Level), Teaching Assistant, UCSD Winter 2015
- Fundamentals of Java, Visiting Faculty, LNMIIT Summer 2009
- Data Structures and Algorithms, Visiting Faculty, LNMIIT Summer 2009

HONORS AND AWARDS

- Achieved Academic Excellence award for year 2003 - 04, given to 2% students out of a batch of 400.
- Achieved an all India rank 22 amongst 171,000 students (percentile: 99.99) appearing for the Joint Entrance Examination conducted by Indian Institutes of Technology.
- Received merit based scholarship from the State of Andhra Pradesh for four years at IIT Kanpur.

LANGUAGES

- Proficient in English, Hindi and Telugu (native).