

# Chetan Verma

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## Education

- **University of California San Diego** San Diego, CA  
PhD, Electrical and Computer Engineering 2012 - Nov 2015 (Expected)  
Adviser: Prof. Sujit Dey (Advanced to candidacy in May 2014)
- **University of California San Diego** San Diego, CA  
Master of Science, Electrical and Computer Engineering (GPA: 3.7/4) 2009 -2011
- **Indian Institute Of Technology Madras** Chennai, India  
Bachelor of Technology, Electrical Engineering (GPA: 8/10) 2004 -2008

## Research experience

- **Modeling user file access patterns** Mountain View, CA  
Research intern, Symantec Research Labs June 2014 - Mar 2015  
Mentors: Michael Hart, Sandeep Bhatkar, Aleatha Parker-Wood
  - Modeling user file access patterns for applications such as file discovery and recommendation
  - Leveraged collaboration to improve performance. Sped up model testing by more than 50 times
  - The work has led to a full paper at ICEIS 2015 (Nomination for best student paper award) and is invited as a book chapter at Springer LN BIP (see below). The work has also led to 3 patent applications by Symantec.
- **Learning semantic structures from annotated image corpus** Bangalore, India  
Research intern, Yahoo Labs June - Dec 2013  
Mentors: Nikhil Rasiwasia, Vijay Mahadevan, Gaurav Aggarwal
  - Studied application to tag recommendation, noisy tag removal and image classification
  - Drastically reduce space requirement for pair-wise similarities from several TBs to MBs
  - This work has led to a WWW poster and an Elsevier ESWA journal paper (see below)
- **Text based video webpage classification** San Diego, CA  
Graduate Student Researcher, University of California San Diego Jan 2010 - June 2013  
Adviser: Prof. Sujit Dey
  - Classification of video webpages, such as YouTube, using metadata based textual features
  - Developed approaches to obtain training data for classification to application specific categories
  - This work was presented in WI 2013. Extended version is accepted at IEEE Access journal.
- **Opinion mining using Twitter** Irvine, CA  
Intern, Samsung Research June - Aug 2012
  - For Movie recommendation, built a framework to constantly monitor tweets discussing certain movies

## Publications

### Selected journal papers/book chapters:

1. Methods to Obtain Training Videos for Fully Automated Application-Specific Classification. Chetan Verma, Sujit Dey. *IEEE Access*, 2015
2. Improving Scalability of Personalized Recommendation Systems for Enterprise Knowledge Workers. Chetan Verma, M. Hart, S. Bhatkar, A. Parker-Wood, S. Dey. *Springer Lecture Notes on Business Information Processing*, 2015 (Invited)
3. Data Driven Construction and Evaluation of Ontological Tag Graphs. Chetan Verma, V. Mahadevan, N. Rasiwasia, G. Aggarwal, R. Kant, A. Jaimes, S. Dey. *Elsevier Expert Systems and Applications*, 2015

## Selected conference papers:

1. Access Prediction for Knowledge Workers in Enterprise Data Repositories. Chetan Verma, M. Hart, S. Bhatkar, A. Parker-Wood, S. Dey. *International Conference on Enterprise Information Systems (ICEIS), 2015 (Nominated for best student paper award)*
2. Construction of Tag Ontological Graphs by Locally Minimizing Weighted Average Hops. Chetan Verma, V. Mahadevan, N. Rasiwasia, G. Aggarwal, R. Kant, A. Jaimes, S. Dey. *ACM World Wide Web (WWW poster), 2014*
3. Fully Automated Categorization of Internet Videos to Application Specific Categories. Chetan Verma, S. Dey. *IEEE/WIC/ACM International Conference on Web Intelligence (WI), 2013*

Please see website for more details.

## Professional experience

Research intern, <b>Symantec Research Labs</b>	June 2014 - March 2015
Research intern, <b>Yahoo Labs</b>	June 2013 - Dec 2013
Intern, <b>Samsung Research</b>	June 2012 - Aug 2012
Associate Engineer, <b>Qualcomm, India</b>	July 2008 - July 2009
Intern, <b>Ittiam Systems</b>	May 2007 - July 2007
Teaching Assistant, <b>University of California San Diego</b> (Courses: Digital Signal Processing, Digital Design)	Fall 2012, Winter 2013, Winter 2014

## Talks and presentations

- Access Prediction for Knowledge Workers in Enterprise Data Repositories. *ICEIS, Barcelona, 2015*
- Data Driven Construction and Evaluation of Ontological Tag Graphs. *Yahoo Labs, Bangalore, 2013*
- Fully Automated Video Categorization to Application Specific Categories. *Indian Institute of Technology Hyderabad (IIT-H), 2013; UCSD Research Expo, 2013; Samsung, 2012; CWC Research review 2012*
- Video Categorization and User Preference Estimation Using Contextual Information of Internet Videos. *UCSD Research Expo 2011*
- A Realistic Small-World Model for Wireless Mesh Networks *UCSD Research Expo 2010*

## Skills

**Programming:** C/C++, Python, Matlab, Unix Shell script, Java (familiar), R (familiar)

**Tools:** Weka, Rapidminer, Git, Perforce, Eclipse, L<sup>A</sup>T<sub>E</sub>X, MS Office

**Frameworks:** Map Reduce, Spark, Spark SQL

**Operating Systems:** Mac OS, Unix, Windows

## Awards and achievements

- Best Student Paper Award nomination at ICEIS 2015, Barcelona, Spain (2015)
- Science and Engineering Library Award for Best Use of the Literature (2015)
- International Center Outstanding Contributor Award ECE, UCSD (2012)
- Full tuition waiver and Graduate Student Researcher recipient (Jan 2010 - Present)
- All India Rank 1137 (Screening: 139) in IIT-JEE, among more than 200,000 applicants (2004)

## Patents

- A method to detect malicious or risky behavior by computing the likelihood of data accesses (to be filed)
- A method to efficiently apply personalized machine learning models by selecting models using active instance attributes (to be filed)
- A method to improve usability and insight about relevant activity in file navigation interfaces (to be filed)

References available upon request