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Pittsburgh, PA 15206, USA dishang@cs.cmu.edu

RESEARCH INTERESTS Statistical machine learning, optimization, nonparametric statistics, active learning, deep learning, applications of machine learning to computer vision and natural language processing

EDUCATION **Carnegie Mellon University**, Pittsburgh, PA

M.S., Language Technologies, *Expected*: Summer 2015

- Research Topics: *Proactive Machine Learning with Time Varying Expertise, Unsupervised Phrasal Near-Synonym Generation*
- Advisors: Jaime G. Carbonell, Ph.D and Anatole Gershman, Ph.D

Indian Institute of Technology, Kanpur, India

B.Tech., Material Science and Engineering, May 2011

RESEARCH EXPERIENCE **Carnegie Mellon University**, Pittsburgh, PA, USA **May 2014 – Present**
Proactive Machine Learning with Time Varying Expertise

Supervisor: Prof. Jaime G. Carbonell

Working on developing a proactive machine learning model for the cybersecurity domain which incorporates the time-varying aspect of annotator expertise.

Carnegie Mellon University, Pittsburgh, PA, USA **August 2012 – August 2013**
Unsupervised Near-Synonym Generation

Supervisors: Prof. Jaime G. Carbonell and Prof. Anatole Gershman

Developed a highly scalable system which generates near-synonymous phrases given an input phrase, in real-time via a webserver interface.

Pennsylvania State University, State College, PA, USA **May 2010 – August 2010**
Aerodynamic Effects of Film Cooling

Supervisor: Prof. Cengiz Camci

Studied the positive and negative effects of film cooling injections on the aerodynamics of airflows inside axial flow turbines, used in modern aircraft engines.

WORK EXPERIENCE **iLink Systems**, Bellevue, WA, USA **October 2011 – May 2012**
Software Developer

Integrated software systems and developed custom applications, components, and frameworks for healthcare, telecom, government and IT clients, using C# in Microsoft Visual Studio environment.

PUBLICATIONS AND REPORTS

1. **Gupta, D.**, Carbonell, J., Gershman, A., Klein, S., and Miller, D. “Unsupervised Phrasal Near-Synonym Generation from Text Corpora”. In *Proceedings of 29th AAAI Conference on Artificial Intelligence*, 2015 (Oral).
2. **Gupta, D.**, Carbonell, J., and Gershman, A. “Unsupervised Phrasal Near-Synonym Generation from Text Corpora”. In *LTI Student Research Symposium*, 2014 (Oral).

3. **Gupta, D.**, Silva, D., and Zhou, L. “Inferring Networks and Estimating Influence in Social Media”. In *Probabilistic Graphical Models Project Presentation Session*, 2014 (Oral).
4. **Gupta, D.**, Goutam, R., and Ng, A. “Multimedia Event Detection using Visual Features”. In *Machine Learning Project Presentation Session*, 2013 (Poster).

AWARDS AND HONORS

James R. Swartz Entrepreneurial Fellow, 2014

- A highly selective, campus-wide program for graduate students at CMU who are passionate about entrepreneurship in the technology arena.

Research Fellowship, Carnegie Mellon University, 2013

- Full tuition waiver and stipend for the Masters in Language Technologies program.

Central Board of Secondary Education Merit Certificate, 2007

- Awarded to top 0.1% students in the All India Senior Secondary Certificate Exam.

TEACHING EXPERIENCE

Teaching Assistant Spring 2014

MSIT eBIZ – Search Engine Optimization and Data Mining

Instructor: Prof. Jaime G. Carbonell

Institute of Software Research,
Carnegie Mellon University

ACTIVITIES AND PROFESSIONAL SERVICE

Reviewer. Reviewed papers at NIPS July 2014

Student Contact at LTI Open House Feb 2014 – Aug 2014

- Served as mentor to newly admitted students at LTI.

Tutoring. Tutored high school students at IIT Kanpur in India.

RELEVANT COURSES

Machine Learning, Probabilistic Graphical Models, Language and Statistics, Intermediate Statistics, Deep Learning, Algorithms for NLP, Statistical Machine Learning (In Progress), Convex Optimization (In Progress)

PROGRAMMING

Java, Python, MATLAB, C, C++, C#, HTML, CSS, JavaScript, Linux Bash, L^AT_EX.

REFERENCES

Jaime G. Carbonell

Allen Newell University Professor, Director Phone: 412-268-7279

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Carnegie Mellon University

Anatole Gershman

Distinguished Career Professor Phone: 412-268-8259

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