

Anusri Pampari

CONTACT INFORMATION	Master of Science, Department of Computer Science University of Illinois at Urbana-Champaign	pampari2@illinois.edu p.anushri25@gmail.com http://panushri25.github.io/
RESEARCH INTERESTS	Machine Learning: Model interpretability, Model Robustness, Natural Language Processing, Question Answering, Application of machine learning to health-care and biology	
EDUCATION	University of Illinois at Urbana-Champaign (UIUC) M.S., Computer Science, 2016-18	3.9/4.0
	Indian Institute of Technology (IIT), Bombay, India B.Tech - M.Tech (Dual Degree), Electrical Engineering, 2011-16	9.1/10.0
PUBLICATIONS	EMNLP 2018: Empirical Methods in Natural Language Processing “emrQA: A Large Corpus for Question Answering on Electronic Medical Records” [arXiv link] <i>Authors:</i> A. Pampari, P. Raghavan (IBM Research), J. Liang (IBM Research), J. Peng (UIUC) Oral paper (acceptance rate: 10%) Awarded the Best Paper and Presentation Award at the American Medical Informatics Association’s (AMIA 2017) doctoral student consortium. Only masters student to be selected to present at the venue out of 6 graduate students. <ul style="list-style-type: none">Proposed a framework to generate a large-scale QA dataset consisting of questions, answers and logical forms using existing resources and minimal expert input.Used this framework to generate a QA dataset for Electronic Medical Records.Characterized the dataset and evaluated various heuristic and neural QA baselines. ISMB 2019: International Conference on Intelligent Systems in Molecular Biology “Learning Predictive Embeddings from Heterogeneous Molecular Networks” [in preparation] <i>Authors:</i> A. Pampari*, Y. Chen* (U. Maryland), M. Leiserson (U. Maryland), J. Peng (UIUC) <ul style="list-style-type: none">Designing and evaluating a supervised framework to learn topological embeddings for genes by aggregating multiple heterogeneous networks.Explore the use of embeddings for various downstream biomedical applications. SIGIR 2019: ACM’s Special Interest Group on Information Retrieval “Help Me Search: Leveraging User-System Collaboration for Query Construction” [under review] <i>Authors:</i> S. Kuzi (UIUC), A. Narwekar (UIUC), <u>A. Pampari</u> , C. Zhai (UIUC) <ul style="list-style-type: none">Implemented a novel framework where the search engine and the user work together to iteratively reformulate a input query. Method is shown to improve retrieval accuracy for difficult queries.	
AWARDS	Siebel Scholar: \$35k awarded annually for academic excellence and demonstrated leadership to over 90 top students from 16 of the worlds leading graduate schools [Press release] [’18] Academic Awards <ul style="list-style-type: none">Stanford School of Engineering Fellowship for the first three quarters [’19]Academic Excellence Award for ranking 2nd in dept’s B.Tech - M.Tech program, IIT Bombay [’16]Undergraduate Research Award for outstanding research contribution, IIT Bombay [’15]Best Research Project Award out of 112 institute wide projects, IIT Bombay [’12] Leadership Awards <ul style="list-style-type: none">Organizational Excellence Award for leading the dept’s mentorship body, IIT Bombay [’16]Outstanding Mentorship Honor out of 200 institute student mentors, IIT Bombay [’15] Travel Awards <ul style="list-style-type: none">Tapia Conference Travel Grant: awarded to 3 graduate students from UIUC [’18]Google Conference Travel Grant: awarded to 8 students from graduate schools in USA [’18]	
REFERENCES	Jian Peng , <i>Assistant Professor, UIUC</i> — jianpeng@illinois.edu [Thesis adviser] Max Leiserson , <i>Assistant Professor, Univ. of Maryland</i> — mdml@cs.umd.edu [Collaborator] Preethi Raghavan , <i>Research Staff Member, IBM Research</i> — praghav@us.ibm.com [Mentor] Madhav Desai , <i>Professor, IIT Bombay</i> — madhav@ee.iitb.ac.in [Thesis adviser]	

WORK EXPERIENCE	Question-Answering: IBM Research , Cambridge, MA (May'17 - Jul'17) <i>Guide: Preethi Raghavan - NLP Researcher, Jennifer Liang - Medical Researcher</i> Worked on question-answering and semantic parsing, extended work to a submission at EMNLP
	Mobile Computing for Image Processing: Rice University , Houston, Texas (May'14 - Jul'14) <i>Guides: Farinaz Koushanfar (ECE): UCSD, Azalia Mirhoseini: Google Brain</i> Explored the capability of using both mobile GPUs and CPUs (Snapdragon 800 mobile platform) to accelerate a tree matching pursuit algorithm for sparse approximation of image dictionaries.
RESEARCH PROJECTS	Neural Network Distillation (May'18 - Ongoing) <i>Guide: Jian Peng (CS): UIUC</i> Developing a novel variant of knowledge distillation architecture to effectively transfer the knowledge from a cumbersome model to a small model that is more suitable for deployment.
	Machine Learning in Computational Biology (Jan'17 - Aug'17) <i>Guide: Jian Peng (CS): UIUC</i> Implemented models to infer the normal (non-cancer) gene cells targeted by cancer therapy drugs Worked on transfer learning to improve the performance of drug sensitivity prediction in mice where limited data is available
	Health-Care Applications on FPGA Hardware (Jun'14 - Jun'16) <i>Guide: Madhav Desai (EE): IIT Bombay</i> Worked on Improving signal processing performance (acceleration of 10x-30x and power savings of two orders) used for the detection and compression of ECG signals in Arrhythmia diagnostics. Designed a pipelined hardware architecture that reduces the latency (2x speedup) in Smith Waterman dynamic programming algorithm for accelerating DNA sequence alignment.
COURSE PROJECTS	<ul style="list-style-type: none"> Graph Convolution Networks for Protein Interface Prediction Bioinformatics Prof. J. Peng Co-reference Resolution using RNNs Machine Learning Prof. D. Roth Triple Scoring Task, WSDM Cup Data Mining Prof. J. Han Indoor Localization using WiFi Computer Vision Prof. D. Hoiem An implementation survey on variants of RNN Deep Learning Prof. S. Lazebnik
GRADUATE COURSES	Machine Learning: Machine Learning, Data Mining, Computer Vision (A+ grade), Cutting Edge Trends in Deep Learning, Bioinformatics, Advanced Information Retrieval, ML in Computational Biology (A+ grade)
	High Performance Computing: Advanced Computing, High Performance Scientific Computing, VLSI CAD, Microprocessors, VLSI Design, Digital Systems, Systems Design, Processor Design
TEACHING	Graduate Teaching Assistant: 5 semesters at UIUC, 2 semesters at IIT Bombay (Aug'15 - Dec'18) <ul style="list-style-type: none"> IIT Bombay: VLSI CAD (EE677) & Digital Electronics (EE224) UIUC: Bioinformatics (CS466), Intro. to Computing (CS101) & Discrete Mathematics (CS173) [UIUC list of teachers ranked excellent]
	Senior Academic Mentor , Counselling Service, IIT Bombay: 4 semesters (Aug'14 - May'16) <ul style="list-style-type: none"> Conducted remedial classes for CS and EE courses for peers needing academic help
LEADERSHIP	Head of Department Academic Mentorship Program, DAMP'15 (Aug'15 - Aug'16) <ul style="list-style-type: none"> Led a team of 17 mentors (interviewed 80 applicants) to help students facing difficulties with academic load - feedback showed 95% students showed significant grade improvements As a part of dept. committee, involved in restructuring undergraduate curriculum Enhanced faculty-student and counsellor-student interactions in the dept. by various initiatives
	Technical Innovator, MIT Health Technology Camp (Jun'15 - Jul'15) <ul style="list-style-type: none"> Worked closely with Ocularist's at L.V Prasad Eye institute Manufactured '<i>Hydro-Pro</i>', a solution to help speedup prosthetic eye cleaning
	Robotics Club Coordinator (Aug'12 - Aug'13) <ul style="list-style-type: none"> Part of a 8 member team which led all Robotics Club activities at the university Organized Technical General Championships and Inter-Hostel robotic events Imparted technical knowledge by organizing workshops, industrial visits and guest lectures