

Rajkumar Pujari

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EDUCATION	Purdue University , West Lafayette, Indiana, USA Ph.D. in Natural Language Processing, Department of Computer Science	Aug 2017–Present 3.77/4.0
	Indian Institute of Technology Kharagpur , West Bengal, India B.Tech. (Hons.), Department of Computer Science and Engineering	Jul 2010–May 2014 9.10/10
PUBLICATIONS	Understanding Politics via Contextualized Discourse Processing Rajkumar Pujari and Dan Goldwasser Using Natural Language Relations between Answer Choices for Machine Comprehension Rajkumar Pujari and Dan Goldwasser Talk at NAACL-HLT 2019 main conference, Minneapolis, USA on June 2–7 Can Taxonomy help? Improving Semantic Question Matching using Question Taxonomy Deepak Gupta, Rajkumar Pujari, Asif Ekbal, Pushpak Bhattacharyya, Anutosh Maitra, Tom Jain and Shubhashis Sengupta Presented a poster at COLING 2018 main conference, Santa Fe, New Mexico, USA, August 20–24 A Novel Two-stage Framework for Extracting Opinionated Sentences from News Articles Rajkumar Pujari, Swara Desai, Niloy Ganguly and Pawan Goyal Talk at Texgraphs-9 workshop at EMNLP 2014, Doha, Qatar, October 25–29	
RESEARCH EXPERIENCE	Ph.D. Student, Purdue University <i>Contextualized Discourse Representations; Machine Comprehension</i> Worked on investigating the usefulness of common sense knowledge and inferences in machine comprehension. Currently working on developing a distributed and interpretable representation for large political corpora. Project Research Assistant, CFILT, IIT Bombay <i>Semantic Question matching using a taxonomy and DL representations</i> Developed a restricted-domain QA system for Accenture labs, Bangalore. Was primarily focused on developing a hierarchical taxonomy and subsequent classification algorithms used for semantic question matching. Bachelor Thesis Project, IIT Kharagpur <i>Extracting opinionated sentences from news articles</i> Developed a novel two-stage framework to extract opinion-bearing sentences from news articles. The framework is a pipeline of sentiment classifier and a graph-based algorithm analogous to HITS in collaboration with Yahoo!.	Aug 2017–Present Prof. Dan Goldwasser Jan 2016–May 2017 Prof. Pushpak Bhattacharyya Jul 2013–May 2014 Prof. Niloy Ganguly
RELEVANT INTERNSHIPS	Applied Scientist Intern, Amazon Alexa Conversational Search Team <i>Conversational Question Answering in Sports Domain</i> Developed a new conversational QA dataset for sports domain. Built a ParlAI-style data collection tool and collected the dataset using Amazon MTurk. Also designed a generative neural architecture for the task. Summer Internship, Yahoo! Bangalore, India <i>Relevance ranking of comments on news articles</i> Designed and implemented a comment ranking algorithm which scores comments based on the relevance of the comment text to the article and its yahoo classification category (YCT). Externship, Yahoo! Bangalore, India <i>Extracting tweets relevant to given news article</i> Designed and implemented an algorithm to construct queries from news articles using named entities and highly co-occurring words. Collected tweets from twitter firehose API using those queries.	May 2019–Aug 2019 Kevin Small May 2013–Jul 2013 Ms.Swara Desai Mar 2013–Apr 2013 Ms.Swara Desai
POSITIONS OF RESPONSIBILITY	Program Committee Member - Reviewer AAAI 2021, AAAI 2020, COLING 2020, IJCAI 2020, NAACL-HLT 2019, EMNLP-IJCNLP 2019, TALLIP Graduate Teaching Assistant Served as a Teaching Assistant for Data Mining and Machine Learning, Web Information Search & Management, Data structures & Algorithms and Operating Systems undergraduate courses. President, Purdue University Cricket Club Responsible for organizing club tournaments for 250 people, raising funds and managing an annual budget of USD \$7000.	Jul 2017–Present May 2019–Present

WORK EXPERIENCE	<p>Senior Quantitative Researcher Jul 2014–Dec 2015</p> <p>WorldQuant Research, India</p> <p>Was responsible for researching financial and mathematical literature and understanding various datasets to identify sources of market inefficiencies and convert them to predictive profitable models called <i>alphas</i>. The objective was to identify and construct signals, make robust models from them with high sharpe ratios (returns / risk) and significant abnormal returns. Concentrated mainly on seeking low turnover quality <i>alphas</i> for trading in the equity market which are used in developing algorithmic daily re-balancing long-short trading strategies on US, Europe, Asian and other markets</p>
NOTABLE ACHIEVEMENTS	<p>Was promoted to Senior Quantitative Researcher after 1st year at Worldquant Research for exceptional performance</p> <p>Secured a Department Change from Electrical Engineering department to Computer Science and Engineering department at the end of first year on the basis of academic merit</p> <p>Secured 840th rank amongst more than 450,000 students (99.81 percentile) in IIT-JEE 2010 and 939th rank amongst more than 1,000,000 students (99.91 percentile) in AIEEE 2010</p> <p>Qualified among Center Top 10% in National Standard Examination in Physics and National Standard Examination in Chemistry conducted by Indian Association of Physics Teachers (IAPT) in Class XII standard.</p>
KEY COURSES	<p>Graduate Level: Machine Learning Methods for NLP, Statistical Machine Learning (A+), Deep Learning, Numerical Methods for Optimization, Algorithm Design and Analysis, Operating Systems</p> <p>Data Mining: Information Retrieval, Machine Learning, Speech and Natural Language Processing</p> <p>Electives: Advanced Graph Theory, Artificial Intelligence, Computational Number Theory, Database Management and Systems, Distributed Systems, Formal Systems, Foundations of Cryptography</p>
KEY PROJECTS	<p>Summer Project, IIT Kharagpur May 2012–Jun 2012 <i>Tracking soccer players in a video</i> Prof.Partha Pratim Das</p> <p>Worked on various color segmentation algorithms and implemented a tracking algorithm based on position prediction in successive frames using MATLAB Image Processing Toolkit</p> <p>RISC Processor</p> <p>Designed and implemented a RISC processor in Xilinx for a given 32-bit word length Instruction Set Architecture (ISA) which was uploaded on an FPGA and could successfully execute a program written in binary using the given ISA, as a part of Computer Organization and Architecture laboratory course</p> <p>Compiler for a ‘C’ like Programming Language</p> <p>Designed and built a compiler for a ‘C’ like language using YACC and Bison which converted code in the given language to 3 address code that could be successfully executed on a linux machine, as a part of Compilers laboratory course</p>
EXTRA-CURRICULAR ACTIVITIES	<p>Represented Purdue University Cricket Club in Midwest Cricket Conference 2018 and Midwest Cricket Tournament 2019.</p> <p>Served as a Senior Writing Team Member of Entrepreneurship Cell IIT Kharagpur in academic year 2011–2012</p> <p>Served as an National Service Scheme (NSS) volunteer for 1 year in Education Improvement Group and an National Cadet Corps (NCC) cadet for 6 years and was awarded NCC-A & B certificates</p> <p>Part of 6-member team that qualified for the finals of NIGHTSHIFT event in Kshitij 2012, annual techno-management fest of IIT Kharagpur</p> <p>Member of runners-up team in Inter-Squadron Football competition in Sainik School Korukonda in 2006</p>
REFERENCES	<p>Prof. Dan Goldwasser, Purdue University email: dgoldwas@purdue.edu</p> <p>Kevin Small, Amazon.com email: smakevin@amazon.com</p> <p>Prof. Chris Clifton, Purdue University email: clifton@cs.purdue.edu</p> <p>Prof. Niloy Ganguly, IIT Kharagpur email: ganguly.niloy@gmail.com</p> <p>Prof. Pushpak Bhattacharyya, IIT Bombay email: pushpakbh@gmail.com</p> <p>Prof. Pawan Goyal, IIT Kharagpur email: pawang.iitk@gmail.com</p>