

RAJARSHI BHOWMIK

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<https://kingsaint.github.io>

EDUCATION

Ph.D., Computer Science | Rutgers University – New Brunswick, New Jersey

AUGUST 2015 – PRESENT

M. Tech, Systems Analysis and Computer Applications | National Institute of Technology Karnataka, Surathkal, India

JULY 2012 – JUNE 2014

B. Tech, Computer Science and Engineering | West Bengal University of Technology, Kolkata, India

AUGUST 2007 – JUNE 2011

PROFESSIONAL EXPERIENCE

Summer Research Intern | Nokia Bell Labs, Murray Hill, NJ

JUNE 2017 – AUGUST 2017 & JUNE 2018 – AUGUST 2018

- Designed a novel text processing pipeline for automated, domain-independent, unsupervised processing of free-form texts
- Devised a deep representation learning technique for automatic identification of field contexts in heterogeneous big tabular data

Research Intern | Dell India R & D, Bangalore, India

AUGUST 2013 – JULY 2014

- Expedited the integration process of new features into existing iDRAC GUI by developing semi-automated tools
- Contributed enhancing GUI features for integrated Dell Remote Access Controller

Programmer Analyst | Cognizant Technology Solutions, Kolkata, India

JULY 2011 – JULY 2012

- Contributed to the development of a centralized Identity Business Attribute Repository to help Dun & Bradstreet to deliver maximum value to their customers

TEACHING EXPERIENCE

Teaching Assistant | Rutgers University - New Brunswick, New Jersey

FALL, 2015 – SPRING, 2018

Assistant Lecturer | Dept. of MACS, NITK, Surathkal, India

JULY 2014 – MAY 2015

RESEARCH EXPERIENCE

Graduate Assistant | Rutgers University - New Brunswick, New Jersey

FALL, 2018 – PRESENT

RESEARCH INTERESTS

- Reasoning with factual and commonsense knowledge
- Knowledge graph completion, knowledge graph representation learning using Graph Neural Networks, reasoning-driven knowledge graph-based QA using deep reinforcement learning
- Natural language generation from factual knowledge, abstract text generation from multi-modal data using deep generative networks
- Structured and unstructured text data analysis

PUBLICATIONS

- **(Under Review)** *A Joint Framework for Inductive Representation Learning and Explainable Reasoning in Knowledge Graphs*. Rajarshi Bhowmik and Gerard de Melo
- **(Under Review)** *Predicting Missing Types for a Crowd-Sourced Knowledge Base*. Rajarshi Bhowmik and Gerard de Melo
- *Be Concise and Precise: Synthesizing Open-domain Entity Descriptions from Facts*. Rajarshi Bhowmik and Gerard de Melo, In Proc. of The Web Conference 2019
- *Domain-Independent Automated Processing of Free-Form Text Data in Telecom*. Rajarshi Bhowmik and Ahmet Akyamac, In Proc. of IEEE ICDE 2019
- *Generating Fine-Grained Open Vocabulary Entity Type Descriptions*. Rajarshi Bhowmik and Gerard de Melo, In Proc. of ACL 2018

PATENTS

- *Determination of Field Types in Tabular Data*. Rajarshi Bhowmik, Ahmet Akyamac, and Jeongran Lee, US Patent Application US16/232279
- *Domain-Independent Automated Processing of Free-Form Text*. Rajarshi Bhowmik and Ahmet Akyamac, US Patent Application PCT/US2017/068911

RESEARCH GRANT

- Diffbot Research Grant for Text Generation, 2019

TECHNICAL SKILLS

- | | |
|--|---|
| • Languages: Python, Java, C, C++, | • Deep Learning Frameworks: PyTorch, |
| • Databases: MySQL, Oracle, MongoDB | Keras, Tensorflow |
| • Bigdata Platforms: Apache Hadoop, Spark | • Data Analytics: SciKit Learn, R |

RELEVANT COURSES

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|---|-------------------------------------|
| • Introduction to Artificial Intelligence | • Machine Learning |
| • Pattern Recognition | • Bigdata Analytics and Text Mining |

AWARDS

- Patent Application Award from Nokia Bell Labs, 2018
- Institute Gold Medal for securing highest GPA in M. Tech., 2014
- Assistantship from the Ministry of Human Resource, Govt. of India (2012-2014)

- Scholarship from the Govt. of West Bengal, India (2007-2011)
- Scholarship from Foundation for Excellence (2007-2011)

PROFESSIONAL ACTIVITIES

- Journal Reviewer, Computational Intelligence, Wiley, 2019
- PC Member, MASC-SLL 2018

AFFILIATIONS

- Student Member: ACM, Association for Computational Linguistics (ACL), IEEE