BISWAJIT PARIA

GHC 8003, Carnegie Mellon University, 5000 Forbes Ave, Pittsburgh PA, 15213, USA.

Web: https://biswajitsc.github.io, E-mail: bparia@cs.cmu.edu

Research Interests Statistical Machine Learning, Bayesian Optimization, Sequential Decision Making

EDUCATION

Carnegie Mellon University, Pittsburgh, PA Sep 2017 - Present Advisor: Barnabás Póczos

M.S., Ph.D. in Machine Learning.

Jul 2012 - Apr 2017

Indian Institute of Technology Kharagpur, India 5-year Bachelors and Masters in Computer Science and Engineering

Internships

Summer Research Intern Snap Research. Santa Monica, CA, 2018

Sparse Representations for Fast Retrieval with Ian En-Hsu Yen, Ning Xu

Proposed an approach to sparsify image embeddings in order to speed up retrieval using sparse matrix multiplication operations. We used a continuous surrogate for the FLOPs incurred during retrieval as a regularizer during training.

IISc¹ and Accenture Tech. Labs. Bengaluru, India, 2016 Summer Research Intern Natural Language Inference with Ambedkar Dukkipati (IISc) and Annervaz K.M. (ATL) Proposed a deep learning model using LSTMs and attention for Natural Language Inference.

Relevant Papers

B. Paria, K. Kandasamy, B. Póczos. A Flexible Framework for Multi-Objective Bayesian Optimization using Random Scalarizations. Uncertainty in Artificial Intelligence, 2019. (oral, arxiv)

K. Kandasamy, K. R. Vysyaraju, W. Neiswanger, B. Paria, C. R. Collins, J. Schneider, B. Póczos, E. P. Xing. Tuning Hyperparameters without Grad Students: Scalable and Robust Bayesian Optimisation with Dragonfly. arXiv, 2019.

B. Paria, K.M. Annervaz, A. Dukkipati, A. Chatterjee, S. Podder. A Neural Architecture Mimicking Humans End-to-End for Natural Language Inference. arXiv, 2016. (arxiv)

A. Lahiri, B. Paria, P.K. Biswas. Forward Stagewise Additive Model for Collaborative Multiview Boosting. IEEE Transactions in Neural Networks and Learning Systems, 2016. (arxiv)

A. Guha, M.S. Pydi, B. Paria, A. Dukkipati. Analytic Connectivity in General Hypergraphs. arXiv, 2017. (arxiv)

Honours & Awards

Prime Minister of India Gold Medal Awarded to the top ranked graduating student IIT Kharagpur, 2017

Viterbi-India Scholar Funded summer internship at Viterbi School of Engineering, USC

ACM ICPC World Finalist (Team BitBees)

One of 7 teams from India at the International Collegiate Programming Competition

Indian National Physics Olympiad (INPhO) Awardee for being among the top 30 candidates in India

Attended the team selection camp for the International Physics Olympiad (IPhO)

Indian National Mathematical Olympiad (INMO) Awardee

2010 - 2012

2015

2015

2012

for being among the top 30 candidates in India

Attended the team selection camp for the International Mathematics Olympiad (IMO)

¹Indian Institute of Science

Kishore Vaigyanik Protsahan Yojana (KVPY) Scholar	DST ² , Govt. of India, 2011
for exceptional aptitude in basic sciences, 7th rank in India	

One of 23 medallists in the world

PROGRAMMING Python, Matlab, C, C++, bash

Skills Libraries: Tensorflow, PyTorch, numpy, sklearn

Relevant	Advanced Introduction to Machine Learning	CMU, Fall 2017
Courses	Intermediate Statistics	CMU, Fall 2017
	Statistical Machine Learning	CMU, Spring 2017
	Probabilistic Graphical Models	CMU, Spring 2017
	Advanced Statistics	CMU, Fall 2018
	Martingales	CMU, Fall 2018

Australian Mathematics Competition (AMC) Gold Medallist

SERVICE & **Teaching Assistantships:**OTHER Advanced Machine Learning

Advanced Machine Learning

Convex Optimization

Cmu, Spring 2019

Cmu, Fall 2018

Deep Learning

IIT Kharagpur, Spring 2017

Machine Learning

IIT Kharagpur, Fall 2016

Math Olympiad Teaching

2012 & 2013

AMT³, 2009

Taught number theory and combinatorics to high school students

National Service Scheme (NSS)

2012 & 2013

Served under the NSS to work for the betterment of underpriviled ged children at a village primary school.

²Department of Science and Technology

 $^{^3}$ Australian Mathematics Trust