Ramnath Kumar

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EDUCATION

BITS Pilani, Hyderabad Campus

Hyderabad, India

Masters of Science in Economics

Bachelor of Engineering in Computer Science

Aug 2016 - Jun 2021

- . Achieved overall distinction in Computer Science courses
- . CGPA in Computer Science major: 9.65/10.0 (Top 3 in class of 255)
- . Overall CGPA (B.E. Computer Science and Msc. Economics): 8.92/10.0

RESEARCH/WORK EXPERIENCE

Mila - Quebec Artificial Intelligence Institute

Montreal, Canada Jul 2021 - Present

Consultant

. Research Supervisor: Prof. Yoshua Bengio

. Topic: Deep learning algorithms; Meta-Learning

Amazon ML Bangalore, India

Applied Scientist Intern

Jan 2021 - Jun 2021

- . Mentor: Dr. Gokul Swamy
- . Topic: Stochastic Insight into Neural Networks 😱
- . Published at Amazon's internal conference (AMLC 2021) as the first author. Worked on causal attributions and their implications on the Amazon sales model.

Mila - Quebec Artificial Intelligence Institute

Montreal, Canada

Research Intern

Nov 2020 - Apr 2021

- . Research Supervisor: Prof. Samira E. Kahou
- . Affiliated University: École de technologie supérieure
- . Topic: Theoretical machine learning in the domain of graph neural networks \mathbf{Q}

Bangalore, India

Engineer Intern

Research Intern

Qubole

Jul 2020 - Dec 2020

- . Mentor: Gururaj Krishnamurthy
- . Worked on automating the rollout process (Frost 2.0) for the company
- . Built a package for monitoring jobs on jenkins, and notify the user on slack upon completion
- . Wrote and managed a pipeline which analyses various internal tests, and generates ad statistics and communicated results with the core-qa team

CoCo Lab, Université de Montréal

Montreal, Canada

Jun 2020 - Nov 2020

- . Research Supervisor: Prof. Karim Jerbi
- . Topic: Brain based subject identification using EEG data 🗬

Kno.e.sis, Wright State University

Dayton, USA

Research Intern

May 2019 - August 2019

- . Research Supervisor: Prof. Amit P. Sheth and Prof. Krishnaprasad Thirunarayan
- . Topic: eDarkFind: Unsupervised Multi-View Learning for Sybil account detection 📢
- . Worked on sybil detection in the darknet markets using an unsupervised multi-view learning framework.
- . Worked on object detection models for disaster management.
- . Built an image segmentation model to aid the prediction of nutritional data of food.
- . Worked on GANs and NLP to detect suicidal posts in Suicide Watch and Mental Health subreddits.

Infibeam Ahmedabad, India
Engineer Intern May 2018 – July 2018

. Mentor: Paras Pitroda

- . Developed a dynamic portal for UAE to provide various services such as renew the visa, employment letter, etc.
- . Created API endpoints for the project to aid easy app deployment.

SELECTED AWARDS/ACHIEVEMENTS

Invitee, ML Foundations Sub-track; Research Week with Google, India	2022
Invitee, Machine Learning Summer School, Taipei	2021
Invitee, Google AI Summer School, India (Acceptance Rate: 1.5%)	2020
Travel Grant, The Web Conference, Taipei (Acceptance Rate: 19%)	2020
Awardee , Innovation in Science Pursuit for Inspired Research (INSPIRE) (Acceptance Rate: 1%) (Declined)	2016
Awardee, National Talent Search Examination (NTSE) (Acceptance Rate: 0.5%)	2014

National Olympiad, SOF National Science Olympiad Qualifier (2015), SOF International Math Olympiad Qualifier (2015)

REVIEWER

NeurIPS, Workshop on Meta-Learning (MetaLearn)	2021
ICWSM, International AAAI Conference on Web and Social Media	2020

PUBLICATIONS

- [1] Ramnath Kumar, Tristan Deleu, and Yoshua Bengio. "Rethinking Learning Dynamics in RL using Adversarial Networks". In: 39th International Conference on Machine Learning, ICML. , 2022. Under Review.
- [3] Ramnath Kumar, Tristan Deleu, and Yoshua Bengio. "Effect of diversity in Meta-Learning". In: NeurIPS Workshop on Meta-Learning. ②, ①. 2021.
- [4] Ramnath Kumar and Gokul Swamy. "Stochastic Insight into Neural Networks". In: Amazon Machine Learning Conference (AMLC), 2021. T. AmazonML Internal Conference. 2021.
- [5] Ramnath Kumar, Shweta Yadav, Raminta Daniulaityte, Francois Lamy, Krishnaprasad Thirunarayan, Usha Lokala, and Amit Sheth. "eDarkFind: Unsupervised Multi-view Learning for Sybil Account Detection". In: *Proceedings of The Web Conference 2020.* ②, \(\mathbb{Q}\). 2020, pp. 1955–1965.
- [6] Ramnath Kumar and G Geethakumari. "Temporal Dynamics and Spatial Content in IoT Malware detection". In: TENCON 2019-2019 IEEE Region 10 Conference (TENCON). , IEEE. 2019, pp. 1590–1595.

LANGUAGES

English (Native/Fluent), Hindi (Experienced), Tamil (Experienced), Japanese (Beginner)