# Ramnath Kumar

Email ☑ ♦ Website ♀ ♦ Github ♠ ♦ LinkedIn in ♦ Scholar ►

# **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 10 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 – Feb 2022

Consultant

Amazon ML

Research Intern

Research Intern

Research Intern

. Research Supervisor: Prof. Yoshua Bengio

. Topic: Deep learning algorithms; Meta-Learning

Bangalore, India

Jan 2021 – Jun 2021

Applied Scientist Intern

. 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

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  $\mathbf{Q}$

Qubole Bangalore, India

Engineer Intern

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

May 2019 - August 2019

. Research Supervisor: Prof. Amit P. Sheth and Prof. Krishnaprasad Thirunarayan

- . Topic: eDarkFind: Unsupervised Multi-View Learning for Sybil account detection •
- . Topic: eDarkfind: Unsupervised Mutti-view Learning for Sybii 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.

## BITS Pilani, Hyderabad Campus

Undergraduate Research Assistant

Hyderabad, India July 2018 - Jun 2020

- . Malware detection in IoT under Prof. Geethakumari •
- . Machine Learning in Astronomy under Prof. Rahul Nigam 🗘
- . Machine Learning in P2P Lending under Prof. Hussain Yaganti 🔾
- . R-Package for Inequality with Ordinal Data under Prof. Bheemeshwar Reddy O

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; Research Week with Google, India	2022
Invitee, Machine Learning Summer School, Taipei	2021
Invitee, Google AI Summer School, India (Acceptance Rate: 1.5%)	2020
<b>Travel Grant</b> , The Web Conference, Taipei (Acceptance Rate: 19%) (Declined)	2020
Awardee, INSPIRE Scholar (Acceptance Rate: 1%) (Declined)	2016-2021
Awardee NTSE Scholar (Awarded to 775 students amongst 0.5 million candidates)	2014-2020

vardee, NTSE Scholar (Awarded to 775 students amongst 0.5 million candidates)

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

# **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 **?**.
- Ramnath Kumar, Tristan Deleu, and Yoshua Bengio. "The Effect of diversity in Meta-Learning". In: 39th International Conference on Machine Learning, ICML. 2022. Under Review Q.
- Ramnath Kumar, Tristan Deleu, and Yoshua Bengio. "Effect of diversity in Meta-Learning". In: NeurIPS Workshop on Meta-Learning. 2021. Q.
- Ramnath Kumar and Gokul Swamy. "Stochastic Insight into Neural Networks". In: Amazon Machine Learning Conference (AMLC), 2021. AmazonML Internal Conference. 2021. Q.
- Ramnath Kumar, Shweta Yaday, 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. 2020, pp. 1955–1965. Q.
- 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. **(7**).

# PROFESSIONAL SERVICE

#### Reviewer **ICML** 2022 AutoML 2022 NeurIPS, MetaLearn Workshop 2021 **ICWSM** 2020,2022

# LANGUAGES

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