

# Ramnath Kumar

Email  ◇ Website  ◇ Github  ◇ LinkedIn  ◇ Scholar 

## EDUCATION

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### **BITS Pilani, Hyderabad Campus**

*Masters of Science in Economics*

*Bachelor of Engineering in Computer Science*

Hyderabad, India

*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

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### **Mila - Quebec Artificial Intelligence Institute**

*Consultant*

Montreal, Canada

*Jul 2021 – Present*


- . Research Supervisor: [Prof. Yoshua Bengio](#)
- . Topic: Deep learning algorithms; Meta-Learning

### **Amazon ML**

*Applied Scientist Intern*

Bangalore, India

*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**

*Research Intern*

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 

### **Qubole**

*Engineer Intern*

Bangalore, India

*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**

*Research Intern*

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**

*Research Intern*

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 
- . 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](#) 

## Infibeam

Engineer Intern

Ahmedabad, India







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

<b>Invitee</b> , <i>ML Foundations</i> ; Research Week with Google, India	2022
<b>Invitee</b> , Machine Learning Summer School, Taipei	2021
<b>Invitee</b> , Google AI Summer School, India (Acceptance Rate: 1.5%)	2020
<b>Travel Grant</b> , The Web Conference, Taipei (Acceptance Rate: 19%) (Declined)	2020
<b>Awardee</b> , INSPIRE Scholar (Acceptance Rate: 1%) (Declined)	2016-2021
<b>Awardee</b> , NTSE Scholar (Awarded to 775 students amongst 0.5 million candidates)	2014-2020
<b>National Olympiad</b> , 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** .
- [2] **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** .
- [3] **Ramnath Kumar**, Tristan Deleu, and Yoshua Bengio. “[Effect of diversity in Meta-Learning](#)”. In: *NeurIPS Workshop on Meta-Learning*. 2021. .
- [4] **Ramnath Kumar** and Gokul Swamy. “Stochastic Insight into Neural Networks”. In: *Amazon Machine Learning Conference (AMLC)*, 2021. 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*. 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. .

## PROFESSIONAL SERVICE

### Reviewer

ICML	2022
AutoML	2022
NeurIPS, MetaLearn Workshop	2021
ICWSM	2020,2022

## RELEVANT COURSEWORK

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<b>MATH-F111</b> , Calculus	by K.V. Ratnam
<b>MATH-F112</b> , Linear Algebra	by P.K. Sahoo
<b>MATH-F113</b> , Probability and Statistics	by D.K. Satpathi
<b>MATH-F211</b> , Differential Equations	by T.S.L. Radhika
<b>CS-F320</b> , Foundations of Data Science	by N.L. Bhanumurthy
<b>CS-F407</b> , Artificial Intelligence	by Chittaranjan Hota
<b>CS-F464</b> , Machine Learning	by N.L. Bhanumurthy
<b>CS-F469</b> , Information Retrieval	by Aruna Malapati
<b>Udemy</b> , Deep Learning A-Z	by Kirill Eremenko
<b>Coursera</b> , Neural Networks and Deep Learning	by Andrew NG
<b>Coursera</b> , Improving Deep Neural Networks	by Andrew NG
<b>Coursera</b> , Structuring Machine Learning Projects	by Andrew NG
<b>Coursera</b> , Convolutional Neural Networks	by Andrew NG
<b>Coursera</b> , Sequence Models	by Andrew NG

## LANGUAGES

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