

# Appan Rakaraddi

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**Disclaimer:** Click on the above icons to be redirected to the respective websites. In case of inaccessibility, check out my Homepage (<https://codexhammer.github.io>) for detailed information.

## ABOUT

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Hi,

I am a Ph.D student at Nanyang Technological University, Singapore specializing in Deep learning. My research works tries to interweave across the domains of Graph Neural Networks, Continual learning and Few-shot learning. I have 5+ years of experience with working on Machine learning problems across different domains.

## EDUCATION

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### Nanyang Technological University

Singapore

*Ph.D in Deep Learning*

*January, 2019- Present*

- **Specialization:** Graph Neural Networks, Continual learning, Few-shot learning
- **Thesis:** Graph Neural Networks for Data Mining and Querying
- **Supervisors:** [Dr. Lam Siew-Kei](#), [Dr. Mahardhika Pratama](#)
- **Graduate Courses:** Deep Learning for Data Science, Information Retrieval and Analysis, Data Mining, Database Systems, Virtual Reality
- **CGPA:** 3.83/5.0

### National Institute of Technology

Surat, India

*B.Tech in Electronics and Communication Engineering*

*August, 2013 - June, 2017*

- **Undergraduate Courses:** VLSI Design, Digital Signal Processing, Digital Logic Design, Mobile Communications, Embedded System Design, Data Communications and Networking
- **CGPA:** 8.60/10.0

## RESEARCH INTERESTS

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Graph Neural Networks, Continual learning, Few-shot learning, Big graph Data Mining.

## TECHNICAL EXPERIENCE

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### Nanyang Technological University

Singapore

*Graduate Teaching Assistant*

*August, 2019 - December, 2022*

Handled lab classes as Graduate student assistant across multiple semesters for the courses: Database Management Systems, Digital Logic Design, Circuits and Signal Analysis. I also handled the grading for the lab course Database Management Systems lab course.

### Wipro

Bengaluru, India

*VLSI Verification Engineer*

*August, 2017 - December, 2018*

I worked as a Verification Engineer in the VLSI domain for the development of HDMI 2.1 cable for 8K (7680×4320) video resolution. I mainly worked on the audio blocks of the architecture. The tools/languages which were deployed are Cadence Incisive/ System Verilog.

## **Airtel**

*Telecommunications Engineering Intern*

**Hyderabad, India**

*May, 2016 - July, 2017*

Analysed the failure issues associated with call drops and call connectivity issues in the 900 MHz range frequency Band and optimized the network for a fewer call drops and better connectivity. Also, determined the faulty Trans-Receiver stations with maximum call drops and connectivity failures based on C/I ratio and multiple other parameters.

## **MANAGEMENT EXPERIENCE**

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### **Nanyang Technological University**

*Special Project Officer for Graduate Student Committee (GSC)*

**Singapore**

*June, 2022 - May, 2023*

My duties consisted of assisting the different members of the Graduate Committee across myriad of events ranging from organization of tech talks to sport events.

### **Nanyang Technological University**

*Publicity Director for Graduate Student Committee (GSC)*

**Singapore**

*June, 2021 - May, 2022*

I was responsible for ensuring widespread reach of the events organised by the GSC by handling the social media accounts and preparation of other marketing visualization tools. I was also responsible for maintenance and regular updates of the website for the Graduate Committee for School of Computer Science.

## **KEY SKILLS**

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**Deep learning/ Machine learning frameworks**  
**Programming Languages**  
**Application developer frameworks**  
**Database Management Systems**  
**Other Skills**

Pytorch (Advanced), Tensorflow, JAX, Keras  
Python, C++, Java, C, Dart  
Flutter  
MySQL  
Computer Vision, Natural Language  
Processing (NLP), Generative AI,  
Reinforcement Learning,  
Algorithms & Data structures,  
Probability and Statistics, CUDA, Linux,  
Data mining

## **CONTRIBUTIONS**

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### **PRESENTATIONS**.....

- *Unsupervised Learning for Identifying High Eigenvector Centrality Nodes: A Graph Neural Network Approach @ IEEE Big Data 2021.*
- *Reinforced Continual Learning for Graphs @ CIKM 2022, Atlanta, USA.*

### **REVIEWER**.....

- I have served as a Reviewer for *Information Sciences* conference in the years 2021, 2022 and 2023.

- I have also served as an External Reviewer for the following conferences:
  - VLDB
  - SIGMOD
  - SIGKDD
  - CIKM
  - ICDE
  - WWW

## PUBLICATIONS

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- **Appan Rakaraddi**, Lam Siew Kei, Mahardhika Pratama, and Marcus de Carvalho. "Graph Mining under Data scarcity". accepted in 2024 *International Joint Conference on Neural Networks (IJCNN)*, Yokohama, Japan, 2024.
- **Appan Rakaraddi**, Lam Siew Kei, Mahardhika Pratama, and Marcus de Carvalho. "Reinforced Continual Learning for Graphs". In *Proceedings of the 31st ACM International Conference on Information & Knowledge Management (CIKM '22)*, 2022. Association for Computing Machinery, New York, NY, USA, 1666–1674. <https://doi.org/10.1145/3511808.3557427>.
- Weng, Weiwei, Mahardhika Pratama, Choiru Za'in, Marcus De Carvalho, **Rakaraddi Appan**, Andri Ashfahani, and Edward Yapp Kien Yee. "Autonomous Cross Domain Adaptation Under Extreme Label Scarcity". *IEEE Transactions on Neural Networks and Learning Systems*, 2022. <https://doi.org/10.1109/TNNLS.2022.3183356>.
- **A. Rakaraddi** and M. Pratama. "Unsupervised Learning for Identifying High Eigenvector Centrality Nodes: A Graph Neural Network Approach". *IEEE International Conference on Big Data (Big Data)*, 2021, pp. 4945-4954. <https://doi.org/10.1109/BigData52589.2021.9671902>.

## HONOURS

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<b>CIKM Travel Grant</b> USA	2021
Awarded the grant to travel to the United States for paper presentation at the CIKM conference.	
<b>SIGIR Student Travel Grant</b> USA	2021
Awarded the grant for CIKM conference registration.	
<b>NTU Research Scholarship</b> Singapore	2019
Awarded the scholarship to pursue Ph.D at Nanyang Technological University, Singapore.	

## LINGUISTIC PROFICIENCY

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<b>Kannada</b>	<i>Native tongue</i>
<b>English</b>	<i>Professional</i>
<b>Hindi</b>	<i>Advanced</i>