Appan Rakaraddi

🌐 Homepage | ✉ sprakaraddi@gmail.com | in Appan Rakaraddi | ⚙ codexhammer

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

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

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

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

TECHNICAL EXPERIENCE

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   **Hyderabad, India**
Telecommunications Engineering Intern   *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

Nanyang Technological University   **Singapore**
Special Project Officer for Graduate Student Committee (GSC)   *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   **Singapore**
Publicity Director for Graduate Student Committee (GSC)   *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

Deep learning/ Machine learning frameworks	Pytorch (Advanced), Tensorflow, JAX, Keras
Programming Languages	Python, C++, Java, C, Dart
Application developer frameworks	Flutter
Database Management Systems	MySQL
Other Skills	Computer Vision, Natural Language Processing (NLP), Generative AI, Algorithms and Data structures, Probability and Statistics, CUDA, Linux, Data mining

CONTRIBUTIONS

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

- **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.

- **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.

- **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.*

- 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.

HONOURS

CIKM Travel Grant *2021*
USA
Awarded the grant to travel to the United States for paper presentation at the CIKM conference.

SIGIR Student Travel Grant *2021*
USA
Awarded the grant for CIKM conference registration.

NTU Research Scholarship *2019*
Singapore
Awarded the scholarship to pursue Ph.D at Nanyang Technological University, Singapore.

LINGUISTIC PROFICIENCY

Kannada *Native tongue*
English *Professional*
Hindi *Advanced*