Appan Rakaraddi

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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
Database Management Systems	SQL
Other Skills	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.

- 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*