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SUMMARY

I'm a Ph.D. scholar in the Vision, Language, and Learning Group (VL2G) led by Dr. Anand Mishra at IIT Jodhpur since July 2019. I'm a deep learning enthusiast working on solving interesting problems in the intersection of computer vision, natural language processing, and knowledge graphs. Precisely, I work on multimodal deep learning.

EDUCATION

Indian Institute of Technology, Jodhpur — *July 2019 - Present*
PhD scholar, Department of Computer Science and Engineering — CGPA: 8.65
Thesis Supervisor: Dr.Anand Mishra
Thesis topic: Multimodal Deep Learning

Indian Institute of Information Technology,
Design and Manufacturing, Kancheepuram, Chennai — *July 2014 - May 2018*
B.Tech in Computer Engineering — CGPA: 8.39
B.Tech Project Supervisor: Dr.B Sivaselvan
B.Tech Project: Fake News Identification on Social Media.

Narayana Jr. College, Vijayawada — *May 2012 - May 2014*
Intermediate - (11th and 12th) — Score: 964/1000

Sri Krishnaveni Talent School, Vijayawada — *Jun 2007 - Apr 2012*
SSC - 10th — CGPA: 9.8

PATENTS

1. "SYSTEM AND METHOD FOR INTELLIGENT RECRUITMENT MANAGEMENT"
   Granted U.S Patent: US 11410097 B2 - [Link] — *09 Aug 2022*

PUBLICATIONS

1. **Abhirama S. Penamakuri**, Manish Gupta, Mithun Das Gupta, Anand Mishra. *Answer Mining from a Pool of Images: Towards Retrieval-Based Visual Question Answering*, **IJCAI 2023 (Main Track) (15 % acceptance rate)**. [Link]

2. Prajwal Gatti, **Abhirama S. Penamakuri**, Revant Teotia, Anand Mishra, Shubhashis Sengupta, Roshni Ramnani. *COFAR: Commonsense and Factual Reasoning in image search*, **AACL-IJCNLP'22 (26.5 % acceptance rate)**. [Link]

3. Nakul Sharma, **Abhirama S. Penamakuri**, Anand Mishra. *Contrastive multi-view textual-visual encoding for open-set one-shot logo identification*, **ICVGIP'22 (36 % acceptance rate)**. [Link]

ACADEMIC UPDATES/AWARDS/FELLOWSHIPS

- Attended IJCAI 2023 (Macao, S.A.R) and presented 'RetVQA'. — *Aug. 2023*

- Received Microsoft Travel Grant to attend IJCAI 2023 at Macao, S.A.R. *July 2023*

- Reviewer for ICVGIP 2023. *July 2023*

- Got 3rd place for work on "Retrieval-based VQA" at Prometeo (IITJ Tech Fest). *Feb. 2023*

- Attended ICVGIP 2022 and presented our 'large-scale one-shot open-set logo work'. *Dec. 2022*

- Attended AACL-IJCNLP 2022 (virtual) and presented COFAR. *Nov. 2022*

- Received first prize in the "Experiential Interface" track for my ongoing work "Retrieval-based VQA" in Youth Conclave organized by INAE and SERB. *September, 2022*

- Reviewer for ICVGIP 2022. *August, 2022*

- Received "Best presentation award" and "Constructive interaction award" in 'Departmental Student Seminar Series' by Department of CSE, IIT Jodhpur. *March 2022*

- Got selected for "Prime Minister Research Fellowship" (PMRF, MoE, GoI) *November, 2021*

- We (Dr. Mishra A., Abhirama P., Revanth P., & Tawatia K.) have received "Microsoft Academic Partnership Grant (MAPG) 2021" *July, 2021*

- Received "Good Teaching Assistant Recognition" (for course on NLP). [*certificate*] *July, 2021*

- Got accepted into "CVIT 5th Summer School on AI" (IIIT Hyderabad) *July, 2021*

- Got accepted into "PRAIRIE/MIAI AI Summer School 2021 (France)" [*certificate*] *June, 2021*

- Gave a talk on "Introduction to ML" in Summer school, Civil Eng. Dept., IITJ. [Slides], [Code] *June, 2021*

WORK EXPERIENCE

Programmer Data Analyst (Data Science)
Drive Analytics Pvt. Ltd., Chennai, India *Jun 2018 - July 2019*
Collaborated extensively in team of five that built an end to end intelligent recruitment management system. Applied various natural language processing techniques and further heuristics for automatic document parsing of job specifications and candidate resumes and thereby enabling higher productivity for recruitment teams.

Talent Acquisition Lead
Drive Analytics Pvt. Ltd., Chennai, India *Dec 2018 - Feb 2019*
Led a four member talent acquisition team that had conducted three different walk-in sessions for junior/intern positions in Data Science.

INTERNSHIPS

Machine Learning Intern
IIITDM Kancheepuram, Chennai *May 2016 - July 2016*
Mentor:- Dr SR Pandian
Worked on face recognition module using PCA in matlab.

Machine Learning Research Intern
Ericsson, Chennai *May 2017 - Oct 2017*
Mentor:- Dr M Saravanan
Developed machine learning models for classifying real-time twitter feed to alert local users about any emergent tweets in their locality. Worked on implementing Apache Kafka Message Queue for handling real-time data in mobile networks.

Machine Learning Intern
Drive Analytics Pvt. Ltd., Chennai   *Jan 2018 - May 2018*
Independently developed a smart job track monitoring system, that summarizes job requisitions received in any form and outputs a standardized result, analysing historical data of previous requisitions. Built a job role classifier, that categorizes various skill sets into respective job roles.

TEACHING ACTIVITIES

- **Gave a tutorial on Seq2seq models**
  Winter School on Responsible AI, IIT Jodhpur.   *Dec. 2022*

- **Gave a tutorial on pre and post transformer-era vision-language research**
  VL2G, Dept. of CSE, IIT Jodhpur. [Slides]   *11-15 Apr 2022*

- **Mentor - Introduction to Programming in Python**
  Virtual Summer School   *21 June 2021- 26 June 2021*

- **Teaching Assistant**

  1. **Data Structures and Algorithms**, IIT Jodhpur   *August 2023 - Present*
  2. **Natural Language Understanding**, IIT Jodhpur   *Jan 2023 - July 2023*
  3. **Fundamentals of Machine Learning**, IIT Jodhpur   *Aug 2022 - Dec 2022*
  4. **Natural Language Understanding**, IIT Jodhpur   *Jan 2022 - May 2022*
  5. **Mathematics for Computer Science**, IIT Jodhpur   *Aug 2021 - Dec 2021*
  6. **Natural Language Understanding**, IIT Jodhpur   *Mar 2021 - July 2021*
  7. **Deep Learning**, IIT Jodhpur   *Dec 2020 - Feb 2021*
  8. **Graph Theory and Applications**, IIT Jodhpur   *Sep 2020 - Nov 2020*
  9. **Theory of Computation**, IIT Jodhpur   *Jan 2020 - Aug 2020*
  10. **Machine Learning - I**, IIT Jodhpur   *Feb 2020 - Aug 2020*
  11. **Introduction to Python Lab**, IIT Jodhpur   *July 2019 - Dec 2019*

TECHNICAL SKILLS

Programming Languages:- C/C++, Python, Java (Basic)
Libraries:- PyTorch, Tensorflow/Keras, Pandas, Numpy, scikit-learn, OpenCV, Spacy, NLTK
Software and Tools:- Jupyter/IPython, Docker, Apache Kafka, AUTOCAD
Databases:- MySQL, Postgres SQL
Web development:- HTML, CSS

ADDITIONAL COURSE WORK AND CERTIFICATIONS

1. Fundamentals of Deep Learning* [*certificate*]

2. Building Transformer-based Natural Language Processing Applications* [*certificate*]

3. Information Security* [*certificate*]

4. Introduction to Computing using Python*

5. Introduction to Mobile App and Web Development* [*certificate*]

[*- online courses]

CO-CURRICULAR POSITIONS HELD

1. PhD Class Representative, IIT Jodhpur — *Aug 2020 - Present*
2. Academic Affairs Secretary (Hostel), IIT Jodhpur — *Aug 2019 - May 2020*
3. Placement Co-ordinator, IIITDM Kancheepuram — *August 2017 - May 2018*

OTHER ACHIEVEMENTS

- Freelanced for COVID-19 contact tracing application with DronaMaps 3D — *April, 2020*
- GATE Qualified — *{2018, 2019}*
- Secured a rank of **1112 among 4 lakh** candidates in AP EAMCET. — *2014*
- Secured a rank of **12.1k among 7 lakh** candidates in JEE MAINS. — *2014*
- Secured a rank of **9.3k among 1.2 lakh** candidates in JEE Advanced. — *2014*
- Second prize in Constitution Quiz (organized by Quiz Club, IITJ) — *2019*
- Second Prize in Quiz competition (organized by Quiz Club, IIT Jodhpur) — *2019*
- First Prize in Quiz competition (organized by Samgatha, IIITDM) — *2018*
- First prize in Algorithm Design competition (organized by Samgatha, IIITDM) — *2017*
- Hindi Pandit - Cleared 8 courses as formulated by Dakshin Bharat Hindi Prachar Sabha (DBHPS) — *2006 - 2015*
- Received Medals of Merit (6th - 11th) — *2007 - 2013*