VYSHNAVI GUTTA

✉ vgutta7@gatech.edu | 🌐 vyshnavigutta369.github.io | in Vyshnavi Gutta, Linkedin

EDUCATION

Georgia Institute of Technology — Atlanta, GA
Master of Science in Computer Science; GPA: 4.00 — *Aug. 2021 – Present*

International institute of Information and technology — Hyderabad, India
B.Tech and M.S by Research in Computer Science and Engineering; GPA: 8.03/10.0 — *Aug. 2014 – Oct. 2019*

PUBLICATIONS

An improved HIL model for fine-grained recognition with batch-based question answering
International Conference on Data Sciences and Management of Data, 2020 — *Paper link*

○ Proposed *locality degree of an attribute in a cluster* for mitigating cost-sensitivity in recognition systems. Achieves **8**% **improvement** over the state-of-the-art in the metrics accuracy and computation time.

EXPERIENCE

Georgia Institute of Technology — Atlanta, GA
Graduate Teaching Assistant for CS4400, Intro to Databases — *Aug 2021 - Present*

Graduate student researcher under Prof. Dr. Ling Liu — *Jan 2022 - Present*

○ **Adversarial gradient attacks on real-time object detection**: Developing a universal adversarial perturbation technique for video-level privacy preservation against state-of-the-art deep object detection networks.

Reliance Jio — Hyderabad, India
Data Scientist — *Nov 2019 - July 2021*

○ **Domain-agnostic query intent detection**:
Conducted multi-source domain adaptation using large pretrained models. Serving $\sim$ **2000 clients** daily.
○ **NLU for medical sense disambiguation**:
Used Induction neural network for slot filling in a few-shot setting. Achieved SOTA with just **60**% **of the data**.
○ **Transliteration with monotonic local attention**:
Syllabified transliteration for training Seq2Seq net via Sonority Sequencing. Scalable to **8 language scripts**.

International institute of Information and technology — Hyderabad, India
Research assistant — *May 2017 - Dec 2017*

○ **CropDarpan**: Led and designed Hierarchy-based knowledge acquisition and Coverage-set based QA models on visual symptoms of affected crops for pest prediction.

PROJECTS

- **Deep reinforcement learning for autonomous driving**:
Working on leveraging deepRL techniques for improving average return performance in AD simulation environments.
- **Representation learning via multi-view contrastive selection**: Optimal view-selection for obtaining better image representations with info-min and multi-view contrastive learning. **4.5**% **improvement** overall w.r.t. SOTA.
- **Geo-location prediction on twitter data**:
Developed **GeoAttn,** a **scalable and memory-efficient** deep CNN model for location prediction from tweets.

PROGRAMMING SKILLS

- **Programming**: C++, Python, Docker, PHP   **Frameworks**: Tensorflow, Pytorch, OpenCV, Numpy, Scikit-learn

SCHOLASTIC ACHIEVEMENTS

- Secured **All India Rank of 1004** in **JEE-Mains 2014** among 1.2 million candidates.
- Received **Academic Excellence Award** in the academic session 2016-17 from IIIT Hyderabad.

RELEVANT COURSEWORK

- **Computer Science**: Computer Vision, ML with Limited Supervision, Reinforcement learning, AI, Data Structures
- **Mathematics**: Probability and Statistics, Linear Algebra, Analytical Calculus, Complexity analysis