

## Education

### KAIST, Republic of Korea

Masters, Graduate School of AI

2020-2022  
CGPA: 4.05/4.3

- Supervised by [Professor Edward Choi](#)

### Panjab University, Chandigarh, India

Bachelor of Engineering With Honours, Information Technology

2015-2019  
CGPA: 9.24/10

- Third position** in B.E. program in Information Technology Department (120 students).

## Research Experience

### Brown University

Summer Intern

July 2020 - Sept 2020

- Mentor: [Professor Srinath Sridhar](#) (Brown University) and [Professor Leonidas Guibas](#) (Stanford University)
- Conducted research in 3D computer vision and machine learning.

### Indian Institute of Technology Hyderabad, India

Visiting Researcher

Jan 2019 - June 2020

- Mentor: [Professor Vineeth N Balasubramanian](#)
- Conducted research in Vision and Language applications and introduced a new task, **ViQAR: Visual on Answering and Reasoning**, which focuses on automatic generation of the answer, and of a rationale, given a visual query.

### Celestini Project India

Research Intern

June 2018 - Aug 2018

- Mentors: [Dr. Aakanksha Chowdhery](#) (Google Brain and Tensorflow) and [Prof. Brejesh Lall](#) (IIT Delhi).
- Developed a temporal forecasting solution based on the historical data reported by Central Pollution Control board to predict the real-time and fine-grained air quality information in five locations of Delhi.
- [Blog post](#), [Indian press](#) and [Demo youtube video](#).

### Variance.AI

Summer Intern

June 2017 - Aug 2017

- Worked on developing a method to determine the breathing rate and pulse rate of a person using video as a source by making use of **Eulerian Video Magnification Algorithm**.

## Publications

- Radhika Dua, Seongjun Yang, Yixuan Li, Edward Choi. **TAPUDD: Task Agnostic and Post-hoc Unseen Distribution Detection**, **WACV 2023** and **ARROW Workshop, ECCV 2022**. [\[paper\]](#)
- Jeonghoon Park\*, Jimin Hong\*, **Radhika Dua\***, Daehoon Gwak, Yixuan Li, Jaegul Choo, Edward Choi. **Natural Attribute-based Shift Detection**, *Under Review at an A\* conference*. [\[paper\]](#)
- Radhika Dua\***, Sai Srinivas\*, Vineeth N Balasubramanian. **Beyond VQA: Generating Multi-word Answer and Rationale to Visual Questions**, **MULA Workshop, CVPR 2021**. [\[paper\]](#), [video](#), [slides](#), [poster](#)
- Rahul Sajnani, Adrien Poulénard, Jivitesh Jain, **Radhika Dua**, Leonidas Guibas, Srinath Sridhar. **ConDor: Self-Supervised Canonicalization of 3D Pose for Partial Shapes**, **CVPR 2022**. [\[paper\]](#), [website](#)
- Radhika Dua**, Jiyoung Lee, Joon-myung Kwon, Edward Choi. **Automatic Detection of Noisy Electrocardiogram Signals**, **International Workshop on Pattern Recognition in Healthcare Analytics, ICPR 2022**. [\[paper\]](#)

- Taehee Kim, ChaeHun Park, Jimin Hong, **Radhika Dua**, Edward Choi, Jaegul Choo. **Reweighting Strategy based on Synthetic Data Identification for Sentence Similarity Comparison**, **COLING 2022**.
- Divyam Madaan\*, **Radhika Dua\***, Prerana Mukherjee, Brejesh Lall. **VayuAnukulani: Adaptive Memory Networks for Air Pollution Forecasting**, **GlobalSIP2019**. [[code](#), [paper](#), [slides](#)]
- Seongjun Yang, Hyeonji Hwang, Daeyoung Kim, **Radhika Dua**, Jongyeup Kim, Eunho Yang, Edward Choi **Towards a Practical Utility of Federated Learning in the Medical Domain**, *Under Review at an A\* conference*. [[paper](#)]

## Achievements

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- Recipient of the prestigious **Grace Hopper Celebration India (GHCI) 2018** Student Scholarship given to 250 deserving women students from computing, engineering, and IT backgrounds.
- Awarded **Second Prize in Celestini Project India** by **Marconi Society and Google** for our project on Air Pollution Prediction. **Celestini Project India 2018** is a very competitive internship program where only 8 out of 100 extremely talented applicants are selected.
- Recognized as **India's 91 Brightest Engineering Student** by Economic Times Campus Stars 2018-19. It was a four-phase program in which 91 students out of total 37,000 students were selected.
- **Hackathons**: Won hackathons like **Hack In The North 2017**-The largest student hackathon in India (Prize: **Second** and Reward: **27000**), **Hack Infinity 2017** (Prize: **Second** and Reward: **25000**) and **India Hacks 2017** by Hacker Earth (Prize: **Sixth** out of 35000 and Reward: **10000**)

## Professional Activities

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- Reviewer / Subreviewer for **ECCV 2022**, **CVPR 2022**, and **SDM 2020** (SIAM International Conference on Data Mining (SDM20)).
- Volunteer for virtual conferences: **ICML 2020**, **ACL 2020**, and **ICML 2021**.
- **Teaching Assistant** for Scientific Writing (CC500) course and Graduate English Presentations (HSS583) course at KAIST instructed by Prof. Mik Fanguy.
- Poster Mentor at Women in Machine Learning (WiML) workshop, NeurIPS '20.
- **Teaching Assistant** for Deep Learning for Computer Vision offered by Dr. Vineeth N Balasubramanian on NPTEL (National Programme on Technology Enhanced Learning) platform.
- **Teaching Assistant** for Deep Learning for Computer Vision (CS5370) course and Advanced Topics in Machine Learning (CS6360) course at IIT Hyderabad instructed by Dr. Vineeth N Balasubramanian.
- Reviewer for **Grace Hopper Celebration (GHC) 2020** Scholarship.
- Speaker at **codechef campus chapter UIET** (2016-17) where I took programming sessions for junior year students.
- Speaker at **Software Freedom Day 2017**, Panjab University, which aims to motivate the youth to contribute to open source software and pursue an education in STEM fields.
- Mentor at **Hacksprint** version2 Hackathon at Panjab University, Chandigarh.
- Fellow Campus Ambassador in **Campus Geek Ambassador** program by GeeksforGeeks (2017-18).

## Programming Skills

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- **Languages**: Python, C++
- **Deep Learning Frameworks**: Pytorch
- **Libraries and tools**:  $\LaTeX$ , Git, NumPy, Scikit-learn, Matplotlib, Pandas

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\* denotes equal contribution