

# Anirudh Garg

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## Education

New York University - Courant Institute of Mathematical Sciences

Aug 2023 – May 2025 (Expected)

M.S. in Computer Science

GPA - 4.0/4.0

Indian Institute of Technology, Kanpur

July 2017 – May 2021

B.Tech. in Electrical Engineering

## Research Publication

- A Semi-Supervised Approach for Multi-Domain Classification - **Anirudh Garg**, Kartikey Singh, Radhika Mundra (Accepted and to be published) [ICEET 2023]

## Technical Skills

- Courses:** Deep Learning, Machine Learning, Algorithms, Data Structures, Data Mining, Probability, Statistics
- Programming Skills:** C, C++, Python, PyTorch, Tensorflow, TorchServe, Pandas, OpenCV, SQL, MATLAB, Git

## Work Experience

- Software Engineer - Samsung Research and Development Institute Bangalore, India** (July '21 – July '23)
  - Developed a **few-shot** learning classification framework to assess Bixby Voice Assistant's performance across **35 different capsules**, classifying user sessions using **data augmentation** techniques and **attention** models
  - Engineered a unified attention model, enhancing user session classification across diverse Bixby Voice Assistant applications, reducing processing time by over **97%**, and achieving a classification accuracy of **90%**
  - Empowered team with MLflow and DVC, fostering agile model deployment and advanced tracking capabilities
- Summer Intern - Samsung Research and Development Institute Bangalore, India** (May '20 – July '20)
  - Trained and optimized multiple recommendation models for the Bixby Voice Assistant with an accuracy of **87%**
  - Benchmarked performances of the classification models for the recommendation system for Bixby Voice Assistant
  - Implemented **hyper-parameter modulation** and use of kernels in classification models for improved metrics

## Projects

- FUTURE VIDEO FRAME SEGMENTATION PREDICTION** (Sept '23 – Dec '23)  
Mentor: Prof. Yann LeCun - Computer Science Department, NYU Courant [Report] [Code]
  - Developed predictive models using CNNs for motion and transformers for segmentation in synthetic videos
  - Used the first 11 frames of a video to achieve accurate prediction for the 22nd frame with an accuracy of **40%**
  - Employed SimVP and Vision Transformer models with diverse object attributes to predict the segmentation
- ONLINE SPEAKER DIARIZATION WITH INTERACTIVE LEARNING** (Jan '21 – May '21)  
Mentor: Prof. Vipul Arora - Electrical Engineering Department, IIT Kanpur [Report] [Code]
  - Formulated the online speaker diarization problem in a **contextual-bandit** paradigm based on episodic rewards
  - Successfully diarized upto **5** distinct speakers using varied reward vectors and payoff functions
- TWITTER SENTIMENT MINING** (Sept '20 – Dec '20)  
Mentor: Prof. Faiz Hamid - Electrical Engineering Department, IIT Kanpur [Report] [Code]
  - Extracted opinionative data from tweets and classified it according to its polarity, i.e., positive or negative
  - Used various classification models, including LSTMs and neural networks, to achieve an accuracy of **97%**
  - Visualized results across the classification models using word clouds and scatter text representations
- SKIN TRACK** (Summer Project, Electronics Club) (May '18 – July '18)  
Mentor: Science and Technology Council - IIT Kanpur [Code]
  - Designed and tested a wearable watch to enable continuous touch tracking by movement of fingers
  - Deployed using **IoT** and **machine learning algorithm with SVM classifier** with an accuracy of **85%**
  - Presented as one of the **Top 5** projects from IIT Kanpur at the **Engineer's Conclave** held at IIT Bombay

## Scholastic Achievements

- Conferred with a merit certificate at **2016 Indian National Math Olympiad**, ranked among top 50 students
- Awarded with the prestigious **KVPY** fellowship in 2016 with an **All India Rank 370** among 40,000 students

## Leadership Experience

- Student Guide, Counselling Service, IIT Kanpur** (July'18-April'19)
  - Conducted orientation activities for **900 students** in 2018 with a 50-member team for smooth campus transition
- Secretary, Electronics Club, IIT Kanpur** (July'18-April'19)
  - Delivered lectures on IoT, Communication and Digital Logic Circuits during the winter workshop in December'18