

# Aashutosh A V

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## EDUCATION

### Georgia Institute of Technology

*MS in Computer Science (Specialization: Machine Learning)* GPA: 4.0 / 4.0

Aug. 2025 - May. 2027

### Birla Institute of Technology & Science, Pilani

*B.E Computer Science (Minor in Data Science)* GPA: 9.08 / 10

Oct. 2021 – Jun. 2025

## INTERNSHIPS

### Microsoft Research

Jan. 2025 – July. 2025

*Research Intern*

Bangalore, India

- Co-authored a paper(**Under Review at VLDB, 2026**) on optimizing NoSQL Workloads for CosmosDB
- Filed a **patent** titled A Scalable Quality of Service centric Database Packing Policy System
- Built a system to compile forecasting models into native CosmosDB queries for on-server execution

### Yashoda Hospitals

May. 2023 – Jul. 2023

*Machine Learning Intern*

Hyderabad, India

- Developed RNN-based models for live prediction of body-vital values
- Built pre-processing pipelines to handle noisy time-series ICU Data

## RESEARCH EXPERIENCE

### ActionGenome - ScenarioCLIP

Jul. 2024 – Mar. 2025

*DFKI Germany; BITS Pilani, Hyderabad*

- Constructed a synthetic dataset extending ActionGenome with scenario-level annotations using VLMs
- Designed a modified CLIP model using contrastive learning for generating scene-understanding embeddings
- Work done as a part of my **Undergraduate Thesis**, under review at **CVPR, 2026**

### Narrating For You

Jul. 2024 – Mar. 2025

*BITS Pilani, Hyderabad*

- Developed a joint learning methodology for audio-video-text inputs for Deepfake Video generation
- **Winning Demo at the RAISE Workshop, 2024**, a workshop for AI and Robotics
- **Published Paper at WACV, 2026**

### Latent Flow Diffusion for Deepfake Video Generation

Feb. 2024 – Apr. 2024

*University of North Carolina, Charlotte; BITS Pilani Hyderabad*

- Incorporated Vision Transformers to Flow Diffusion Techniques for frame-by-frame understanding of the driving image
- **Published Paper at the CVPRW, 2024**

### GLoCo (Global-Local Contextualisation for Community Detection)

Feb. 2025 – Present

*BITS Pilani Hyderabad*

- Designed a GNN Framework that fuses global and local contexts of unweighted graphs for Community Detection
- Implemented a dual view attention mechanism that is beating state-of-the-art baselines in **NMI & Modularity** scores

### EEG-Based Emotion Classification

Jul. 2023 – Nov. 2023

*BITS Pilani Hyderabad, Nizam Institute of Medical Sciences*

- Synthesised EEG Data using a novel CNN architecture for improved classification accuracy
- Developed a novel CNN-based architecture to classify emotions based on EEG Signals

## TECHNICAL PROFICIENCY

**Programming:** Competitive Programming (Candidate Master @ Codeforces (Rating: 1928))

**AI/ML:** Deep Learning, Machine Learning, Generative AI, Computer Vision, Natural Language Processing, Graph Learning, PyTorch, Multimodal Learning, Efficient ML, Graph Learning

**Other:** Probability, Statistics, Time-Series Analysis, Forecasting Models, Distributed Systems, HPC,