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*

Work Experience

C21U, GeorgiaTech — Dec. 2025 – Present
Graduate Research Assistant — *Atlanta, United States*

- Working on ExplainableAI, Causal Explainability and Multi-year Datasets

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 (All first/co-first author papers)

ActionGenome - ScenarioCLIP — Jul. 2024 – Mar. 2025
DFKI Germany; BITS Pilani

- 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

- 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

- 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 – Nov. 2025
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

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,