Anuska Roy

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Education

International Institute of Information Technology, Bangalore **Jan. 2023 – May 2026**
Masters by Research in DataScience *3.5/4*

Kalinga Institute of Industrial Technology(KIIT) **March. 2017 – May 2021**
Bachelor of Technology in Electrical Engineering *9.0/10*

Work Experience

Research Scholar **Jan 2023 – present**
Research Scholar *Bangalore, Karnataka*

- Published a first-authored paper in VISAPP 2025, achieving state-of-the-art accuracy in generalized few-shot semantic segmentation through a novel combination of incremental training and rank-adaptive LoRA fine-tuning.
- Researching point cloud processing and segmentation using few-shot learning techniques.
- Worked with different CNN architectures along with optimizing the parameters of the network to improve the model performance using metrics such as accuracy, precision, recall, and F1 score.

Accenture **May 2021 – Jan 2023**
Application Developer *Kolkata, WestBengal*

- Developed microservice using .Net core, engaged in the Production support of the application.
- Created a series of test cases in order to cover the maximum functionality of the developed microservices using xUnit Test.
- Developed Windows Services to get automated generated mail reports every day which leads to ease for Business
- Beginner-level DevOps – Code deployment, looking into CICD pipelines
- Knowledge and working experience in Agile Scrum, Actively involved in all Scrum activities - Daily Standup, Sprint Planning, Story Refinements, etc
- Involved in all phases of the life cycle of the project including requirement analysis, development, deployment, and production support

Projects

Generalised Few Shot Semantic Segmentation(GF-Seg) | *Pytorch, VSCode* **April 2024**

- Dense Segmentation of both Base and Novel classes in an image with very few training images
- Imporvement from the current SoTA model accuracy in the current literature of GF-Seg by 5 percent

Facial Synthesis using VAEs and Diffusion Models | *Pytorch, Jupiter NoteBook* **February 2024**

- Developed a facial synthesis system using Variational Autoencoders (VAEs) and Diffusion Model for generating realistic and diverse facial images.
- Performed a detailed study comparing both the pros and cons of using VAE and diffusion model in facial systhesis

Image Captioning | *pytorch, VS Code* **March 2023**

- Initially Employed CNN network as an image encoder and RNN network as the decoder network for caption generation.
- Used BLEU score and the METEOR Score as a means of quantifying the performance of the models
- Improved the initial baseline model with an attention network for better performance

Technical Skills

Languages: Python
Deep Learning Frameworks: PyTorch, Tensorflow, Keras
Programming Libraries: OpenCV, numpy, pandas, scikit-learn
Data Visualization Tools: Matplotlib, seaborn
Configuration Management: Git, Azure Devops