Anisha Jain

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EDUCATION

Carnegie Mellon University - School of Computer Science

Master of Science in Computer Vision (MSCV) - GPA 4.22/4

Pittsburgh, PA

Dec 2024

Relevant Coursework: Learning for 3D Vision, Visual Learning and Recognition, Learning based Image Synthesis

Graduate Teaching Assistant: Data Science Capstone, Spring 2024 (Prof. Eric Nyberg)

National Institute of Technology (NIT), Warangal

Warangal, India

Bachelor of Technology, Computer Science and Engineering - GPA 9.06/10

May 2021

Institute Merit Scholarship Recipient (for all academic years)

EXPERIENCE

Meta Reality Labs

Pittsburgh, PA

Research Collaborator (Capstone Project)

Jan 2024 - Present

(Advisor: Prof Laszlo A. Jeni, CUBE Lab & Michael Zollhoefer, Meta Reality Labs)

• Working on real-time dynamic scene reconstruction using Gaussian Splatting focusing on non-rigidly deforming scenes captured by RGBD sensors

Microsoft (R&D) Pvt Ltd.

Hyderabad, India Jun 2021 - Jul 2023

Software Engineer

- Slashed ML model iteration for spam/phish detection from a month to under 2 hours, boosting threat response
- Streamlined feature extraction, optimizing analysis of 10 billion emails daily for a more efficient email filter
- Innovated end-to-end process for assessing novel features' impact on model performance in *Apache Spark*Software Engineer Intern

 May 2020 Jul 2020

• Elevated accessibility during *offline usage in Android Teams app*, elevating user experience and productivity

- Implemented a robust cache eviction mechanism, optimizing offline read flow for varied network call latencies
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 Conducted a Progressive Web App (PWA) proof of concept, further enhancing app's offline capabilities

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May 2019 - Jul 2019

- Drove a 70% increase in employee efficiency by developing an Intranet app on Teams minimizing context-switch time
- Revolutionized interactivity through creation of AI bots with adaptive cards and messaging extensions

Google

Remote

Software Product Sprint

Jul 2020 - Sep 2020

• Collaborated with a team of 4 to design, develop and launch a movie and book recommendation engine

• Applied a matrix factorization model with collaborative filtering and content embedding for effective training

Indian Institute of Science - Computational Intelligence Lab *Research Intern*

Bengaluru, India

May 2018 - Jun 2019

(Advisor: Dr Amarjot Singh, Founder & CEO, SkyLark Labs, & Dr Onkar, IISc)

- Achieved an 87.8% accuracy in detecting suspicious activities by implementing SH-PAF Network to estimate pose for humans, whose output is further fed to 3D ResNext to captures the motion of an individual
- Addressed critical research gap by curating dataset of 2400+ videos of individuals in loosely fitted attire
- Co-authored and *published* a research paper at ICCVW

PUBLICATIONS

A. Jain, A. Kumar and A. Singh, "Bayesian Gait-Based Gender Identification (BGGI) Network on Individuals Wearing Loosely Fitted Clothing," 2019 IEEE/CVF International Conference on Computer Vision Workshop (ICCVW), Seoul, Korea (South), 2019, pp. 1828-1835, doi: 10.1109/ICCVW.2019.00227 SKILLS

Programming Languages – Python, C, C++, C#, Java

Frameworks – Numpy, Pandas, PyTorch, TensorFlow, OpenCV, Pillow, Tesseract, .NET, Spark, Apache PySpark Tools – CUDA, Git, Docker, Linux, Blender, Android

PROJECTS

Adaptive multi-head attention in Transformer for sentiment analysis

Nov 2023

- Developed a multihedded attention transformer with adaptive attention based on text input for unsupervised pretraining
- Fine-tuned the model for sentiment analysis on movie reviews, achieving nuanced and context-aware sentiment predictions

 Unsupervised Reinforcement Learning across multiple environments [arXiv]

 Oct 2023
- Boosted exploration efficiency by 40% by integrating curiosity-driven exploration and visitation entropy objectives, enhancing RL agent versatility
- Achieved showcased a 20% faster training and 15% improved convergence, thus, rapid adaptation in dynamic environment