Tanveer Hannan

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🌐 Webpage   in LinkedIn   🎓 Google Scholar   ⌨ GitHub

Research Interest

Machine Learning	🔖	Deep Learning, Multi-Modal Learning, Self-Supervised Learning, Unsupervised Clustering, Large Language Modeling, Natural Language Processing.
Computer Vision	🔖	Video Understanding, Vision-Language Modeling, Long-Range Video Modeling, Video Retrieval, Autonomous Driving, Reliable AI, Multi-Object Tracking.

Education

2022 – Present	🔖	**Ph.D. in Computer Science**, $3rd$ Year, *LMU Munich* Advisor: Thomas Seidl, Gedas Bertasius Teaching: *Connecting Language to Vision, Deep learning and Artificial Intelligence, Knowledge Discovery and Data Mining*
2019 – 2021	🔖	**M.Sc. in Data Science** *LMU Munich* CGPA 1.06/4.00 (best 1.0 out of 4.0)
2014 – 2018	🔖	**B.Sc. in Computer Science and Engineering** *Bangladesh University of Engineering and Technology* CGPA 3.79/4.00 (3.93 final 2 years)

Experience

Jul 24 – Dec 24	🔖	Research Scientist Intern, *Huawei Research Center*, Munich, Germany Text-to-Video Retrieval for Autonomous Driving, Reliable AI
Jul 21 – Dec 21	🔖	Research Intern, *Hensoldt Analytics*, Munich, Germany Computer Vision, Video Segmentation & Tracking
Oct 20 – Apr 21	🔖	Research Intern, *Siemens*, Munich, Germany Reinforcement Learning, Optimization
Nov 18 – Aug 19	🔖	Software Engineer *Helical Inc.*, Dhaka, Bangladesh

Research Publications

8 ReVisionLLM: Recursive Vision-Language Model for Temporal Grounding in Hour-Long Videos
T Hannan, M. Islam, J. Gu, T Seidl, G. Bertasius
In *ArXiv* 2024. [pdf]

7 RGNet: A Unified Retrieval and Grounding Network for Long Videos
T Hannan, M. Islam, T Seidl, G. Bertasius
In *ECCV* 2024. [pdf]

6 GRAtt-VIS: Gated Residual Attention for Auto Rectifying Video Instance Segmentation
T Hannan*, R Koner*, M Bernhard, S Shit, B Menze, V Tresp, M Schubert, T Seidl
In *ICPR* 2024 (ORAL). [pdf]

5 InstanceFormer: An Online Video Instance Segmentation Framework
R Koner*, **T Hannan***, S Shit, S Sharifzadeh, M Schubert, T Seidl, V Tresp
In *The Conference on Artificial Intelligence (AAAI)* 2023. [pdf]

4 Context Matters: Leveraging Spatiotemporal Metadata for Semi-Supervised Learning on Remote Sensing Images

M Bernhard, **T Hannan**, N Strauß, M Schubert
In *ECAI* 2024. [pdf]

3 Box Supervised Video Segmentation Proposal Network
T Hannan*, R Koner*, J Kobold, M Schubert
In *Irish Machine Vision and Image Processing Conference (IMVIP)* 2022. [pdf]

2 Prediction of Soft Proton Intensities in the Near-Earth Space Using Machine Learning
E. Kronberg, **T Hannan**, et al.
In *The Astrophysical Journal 921 (1).* [pdf]

1 COVID-DenseNet: A Deep Learning Architecture to Detect COVID-19 from Chest Radiology Images
M. Islam*, **T. Hannan***, L. Sarker, Z. Ahmed
In *International Conference on Data Science and Applications (ICDSA)* 2022. [pdf]

Selected Projects

H-Attention	🔖	Designing a Hierarchical Attention based Transformer network for End-to-end Object Detection.
RL-Optimizer	🔖	Customized Reinforcement Learning Environments to optimize the reorder point to minimize both inventory and stockout costs.
Adversial Attack	🔖	GAN Based Image Steganography is designed with Adversarial Attacks to fool steganographic image classifier.
UniShare	🔖	An academic resource-sharing platform developed using PHP, CodeIgniter framework, MySql, JavaScript, HTML, CSS, and XAMPP server.
PoliceBox	🔖	An interactive server-client system developed using Java Swing, JavaFX, MySql, and Socket Programming to manage services provided by the police efficiently.

Skills

ML tools	🔖	PyTorch, TensorFlow, Keras, Jupyter, Distributed training.
Coding	🔖	Python, Java, C, C++, Java HTML, XML, PHP, JavaScript, 80x86 Assembly.
Soft Dev	🔖	Oracle, MySql, Spring Framework, HTML, CSS.
Misc.	🔖	Lex, Yacc, Shell Script, LaTeX, Git.

Miscellaneous Experience

Awards and Honors

2018	🔖	**9th place**. *Bengali Handwritten Digit Recognition Challenge*, Kaggle Competition 2018.
2016	🔖	**Semi-finalist** in University Debate Championship
2014-16	🔖	**University Merit List**, Bangladesh University of Engineering and Technology.
2014	🔖	**Finalist** in the 4th Stamford National Debate Championship
2012	🔖	**Champion** of Inter-School Debate Competition

Reviewer

2022-24	🔖	Conference: CVPR, ECCV, NeurIPS, ICDE, ICDM