Tanveer Hannan

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🌐 Webpage   🔗 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, Egocentric Vision, Reliable AI, Autonomous Driving, 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 Reliability of Large Vision Language Models
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

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. [pdf]

5   Context Matters: Leveraging Spatiotemporal Metadata for Semi-Supervised Learning on Remote Sensing Images
M Bernhard, **T Hannan**, N Strauß, M Schubert
In *ICPR* 2024. [pdf]

4   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]

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.

BenglaAI ⚑ A CNN-based model for Bengali Handwritten Digit Recognition.

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