

# Tanveer Hannan

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🌐 [Webpage](#)

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## 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, Object Detection and 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. <i>Bengali Handwritten Digit Recognition Challenge</i> , 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