# Aayush Kumar Tyagi

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## EDUCATION

**Indian Institute of Technology (IIT-D)** — New Delhi, India
Thesis: Automatic Detection and Grading of Celiac Disease — July 2022–Aug 2027

**Indraprastha Institute of Information Technology (IIIT-D)** — New Delhi, India
M.Tech. in Communication and signal processing — July 2016–July 2018

**Vidyalankar Institute of Technology** — Mumbai, India
B.E. in Electronics Engineering — Aug 2011–July 2015

## ADVISORS

- Dr. Mausam, Professor Indian Institute of Technology, New Delhi, India Email: mausam@cse.iitd.ac.in
- Dr. A.P.Prathosh Assitant Professor Indian Institute of Science, Bengaluru, India Email: prathosh@iisc.ac.in

## PUBLICATIONS

[1] A. K. Tyagi, V. Mishra, et al., "Guided prompting in sam for weakly supervised cell segmentation in histopathological images", *Scientific Reports*, 2025.

[2] A. K. Tyagi, V. Mishra, A. Tiwari, L. Mehra, P. Das, G. Makharia, P. AP, et al., "Measurenet: Measurement based celiac disease identification", *arXiv preprint arXiv:2412.01182*, 2024.

[3] A. K. Tyagi, C. Mohapatra, P. Das, G. Makharia, L. Mehra, P. AP, and Mausam, "Degpr: Deep guided posterior regularization for multi-class cell detection and counting", in *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, Jun. 2023, pp. 23 913–23 923.

[4] M. Divate, A. Tyagi, D. J. Richard, P. A. Prasad, H. Gowda, and S. H. Nagaraj, "Deep learning-based pan-cancer classification model reveals tissue-of-origin specific gene expression signatures", *Cancers*, vol. 14, no. 5, p. 1185, 2022.

[5] P. Pandey, A. K. Tyagi, S. Ambekar, and A. Prathosh, "Unsupervised domain adaptation for semantic segmentation of nir images through generative latent search", in *European Conference on Computer Vision*, Springer, 2020, pp. 413–429.

## EXPERIENCE

**Lifebytes** — Bengaluru, India
AI specialist - Identifying rare diseases from facial attributes — Oct, 2020 –Feb 2022

**Innefu Labs** — New Delhi, India
Data Scientist - Video Analytic and surveillance — Aug, 2018 –Sept, 2019

## PROFESSIONAL SERVICES

- Reviewer - The Medical Image Computing and Computer Assisted Intervention (MICCAI)     2023, 2024, 2025

- Reviewer - Association for the Advancement of Artificial Intelligence (AAAI)   2026

- Reviewer - IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing   2025 –Current

## COURSES

- Machine Learning
- Computer Vision
- Deep Learning
- Natural Language Processing (NLP)
- Data Mining

## SKILLS

- **Programming Languages:**  Python, Matlab
- **Library:**  Tensorflow, Pytorch, Sklearn, Numpy, OpenCV
- **Expertise Area:**  Deep learning and Computer Vision

## TEACHING

- **Teaching Assistant** at IIT-Delhi   Spring 2025
  *Machine Learning (COL774)*
- **Teaching Assistant** at IIT-Delhi   Fall 2024
  *Principles of Artificial Intelligence (COL333)*
- **Teaching Assistant** at IIT-Delhi   Spring 2024
  *Natural Language Processing (COL772)*
- **Teaching Assistant** at IIT-Delhi   Fall 2023
  *Principles of Artificial Intelligence (COL772)*

## SCHOLARSHIPS AND AWARDS

- AICTE Post graduate scholarship for Masters education   2016–2018
- AFWWA scholarship for college student awarded based on merit basis for the year   2012–2013
- Ranked 7th in state, 63th in India in National biotechnology Olympiad, India   2012
- Ranked 3rd in state, 27th in India in National biotechnology Olympiad, India   2010