

# Tajamul Ashraf

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## Education

**Indian Institute of Technology Delhi** Delhi  
MS(R) in Computer Science August 2022 – present

**National Institute of Technology, Srinagar** Srinagar, J&K  
B.Tech. in Information Technology August 2018 – June 2022  
CGPA: 8.348  
B-tech Thesis: *A Novel Robust Deep Learning Model to find the effect of variations of multiple coherent climatic factors on Climate Change.*

**Tyndale Biscoe and Mallinson School** Srinagar, J&K  
Class XII with 91.8% Jan 2018  
Class X with 92.6% Jan 2016

## Publications

**Tajamul Ashraf, Naiyer Abbas, Mohammad Haseeb, Nadeem Yousuf, Janibul Bashir, An Integral Computer Vision System for Apple Detection, Classification, and Semantic Segmentation.** In Proceedings of the 15th International Conference on Machine Vision (ICMV 2022).

**Tajamul Ashraf, Fuzayil-bin-Afzal Mir, A proposed scale to measure the effect of team building on Engineering students.** International Conference on Recent Advances on Business, Management and Data Analytics(ICBMDA) 2023 .

## Research experience

**Robojanitor- Robotics Challenge 2021-22**  
Mentor: Prof. Raghu Krishnapuram (ARTPARK) Jan (2022)– May (2022)  
The challenge requires a robot to demonstrate janitorial tasks that would be typically performed in a washroom. In this challenge, the tasks are limited to clearing any rubbish that may be on the floor followed by cleaning the washbasin and the washbasin counter using a sanitizing liquid. Finally, the robot will mop the floor of the restroom.

**Human pose Tracker and Pose Comparison**  
Mentor: Prof. S. N. Omkar (IISc Bangalore) May 2021 – Dec 2021  
The project was to develop a human pose comparison model which can aid a yoga teacher during online classes. The model uses Blaze Pose as to mark the key-points of both teacher and students and compares both and instructs the students accordingly.

**Fruit Detection Algorithm using semantic segmentation for identifying fresh and rotten fruit, counting the fruits.**  
Mentor: Prof. Pabitra Mitra (IIT KHARAGPUR) Nov(2020)– March 2021  
Our Goal was to use computer vision to aid agricultural robotics. One problem was identification of fruits in a tree. Devise an algorithm for counting fruits. Implement the algorithm and run on data set. Devise an algorithm to identify fresh and rotten fruit..

### **Team building variables and its effects, HSS&M Lab**

Mentor: Dr Rafiq Teli (NIT SRINAGAR)

Jan 2021 – August 2021

This research is based on how team building process can effect college students in their semester projects, academic Leadership and their overall understanding of team cohesion.

### Industry experience

#### **BSNL, Advanced Level Telecom Training Centre**

Ghaziabad, U.P

Cyber Security and Networking

Winter 2019

Some of the standard concepts covered in this Training were: Basic networking areas (LANs, WANs, Ethernet, and so on). Troubleshooting and solving network problems. Wireless technologies (such as Wi-Fi and Bluetooth) and security.

#### **EXPOSYS DATA LABS**

Bangalore

IOT Developer

June 2021

Encryption and Decryption between users in Morse using a Flashlight. Morse can be sent by persons with severe motion disabilities, as long as they have some minimal motor control. An original solution to the problem that caretakers have to learn to decode has been an electronic typewriter with the codes written on the keys. Morse code can also be translated by computer and used in a speaking communication aid.

### Projects

#### **Detection Classification and Semantic Segmentation of Apples**

A simulated model which demonstrates the working of the TCP/IP Networking Model. This project shows proper working of the all layers

#### **Assembler which converts all 37 RV32I inst into hex and bin machine code**

Came up with a Assembler from scratch which converts all the RISC 5 instructions in Hex Decimal and Binary Code

#### **Raspberry-Pi-Object-Detection autonomous car**

This project contains code and instructions to configure the necessary hardware and software for running autonomous driving object detection on the Raspberry Pi 4

#### **Encryption-and-Decryption-between-users-in-Morse-using-a-Flashlight.**

Created a link (program or interface (no external components)) between Morse and a flashlight and that should blink with respective to Morse.

#### **A network simulator implementing entire-protocol-stack**

A simulated model which demonstrates the working of the TCP/IP Networking Model. This project shows proper working of the all layers

### Skills

#### **Programming**

Proficient in Python, C++, ROS, Open-CV, SLAM

Familiar with: C, Java, HTML, CSS.

#### **Leadership,**

Management and Team building Expertise

#### **Languages**

English	(fluent)
Urdu	(advanced)
Kashmiri	(Mother Language)
Hindi	(Elementary proficiency)
Arabic	(Elementary proficiency)

#### Service and outreach

**Founder RALITH MILITH** July 2020 – Present

Ralith Milith is an anti-drug society based in Kashmir that works towards creating awareness about drug abuse and addiction in the region. Ralith Milith's efforts include organizing awareness programs, counseling sessions, and rehabilitation programs for drug addicts, as well as providing support to their families. By working in partnership with law enforcement agencies, Ralith Milith can help reduce the availability and demand for illicit drugs, ultimately leading to a safer and healthier community.

#### Professional membership

**Vice Chair IEEE Student Branch.** Dec 2019 – June 2022

**Advisory Head of Coding Club SEMICOLON** Sep 2018 – June 2022

**Microsoft Student Learn Ambassador-Gold Milestone** July 2021 – Feb 2022

**NCC Coordinator** Aug 2022–

**Know Your Rights Member** Nov 2022 –

**Reviewer IEEE Transactions on Knowledge and Data Eng** Jan 2023 –