

# Tajamul Ashraf

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Education	<b>National Institute of Technology, Srinagar</b> B.Tech. in Information Technology CGPA: 8.187	Srinagar, J&K August 2018 – Present
	<b>Tyndale Biscoe and Mallinson School</b> Class XII with 91.8% Class X with 92.6%	Srinagar, J&K Nov 2017 Jan 2015
Publications	<b>Hult Prize: A futuristic Approach</b> <i><a href="https://www.thekashmirmonitor.net/Hult%20prize%3a%20futuristic%20approach%20to%20entrepreneurship%2fKashmir%20Monitor%2c%20Dec%2020.">https://www.thekashmirmonitor.net/Hult%20prize%3a%20futuristic%20approach%20to%20entrepreneurship%2fKashmir%20Monitor%2c%20Dec%2020.</a></i>	
Research experience	<b>Robojanitor- Robotics Challenge 2021-22</b> Mentor: Prof. Raghu Krishnapuram (ARTPARK) 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.	Jan(2022)– Ongoing
	<b>Human pose Tracker and Pose Comparison</b> Mentor: Prof. S. N. Omkar (IISc Bangalore) 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.	May 2021 – Dec 2021
	<b>Fruit Detection Algorithm using semantic segmentation for identifying fresh and rotten fruit, counting the fruits.</b> Mentor: Prof. Pabitra Mitra (IIT KHARAGPUR) 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..	Nov(2020)– March 2021
	<b>Team building variables and its effects, HSS&amp;M Lab</b> Mentor: Dr Rafiq Teli (NIT SRINAGAR) 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.	Jan 2021 – August 2021
Industry experience	<b>BSNL, Advanced Level Telecom Training Centre</b> Cyber Security and Networking	Ghaziabad, U.P 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**

IOT Developer

Bangalore

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 a Kashmir based anti drug society which creates awareness and is currently working with J&K Police to control Drug Abuse in our Society

### **IIEDC Coordinator**

Aug 2020 – Present

Overall Student Coordinator of the Entrepreneurship Cell of our College. Under this role my job is to maintain and check the smooth Functioning of our E-Cell. Conducted 35+ Events inside the college including J&K's Largest Idea Pitching Competition (2020).

### **Team Leader- National Entrepreneurship Challenge**

– Feb 2021

Led a team of 22 Members representing Nit Srinagar in India's Biggest Entrepreneurship Challenge held by IIT BOMBAY. Under my Leadership our team Smart Valley won the NEC 2020

### **Team Coordinator-HULT PRIZE 2021**

Dec 2020 – Jan 2021

As a team coordinator I mentored all the emerging teams under the supervision of our Professors.

## Professional membership

### **Vice Chair IEEE Student Branch.**

Dec 2019 – Present

### **Advisory Head of Coding Club SEMICOLON**

Sep 2018 – Present