

# Jahir Uddin

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## Major Achievement

**Project Engineering Manager : Brac University's 2nd Nano Satellite Program, LaSSET**

**European Robotics League 2022:** 4th position and Perseverance award

**My Role:** Project Engineering Manager, AI & Communication Lead

**Media Coverage :** The Business Standard, The Daily Star, NTV, Prothom Alo.

## Education

### BSc in Computer Science

Brac University

- Worked as a Research Assistant
- **CGPA:** 3.29 out of 4.00 (124/124 credit)

May 2018 - Dec 2022

Dhaka, Bangladesh

### Higher Secondary School Certificate

Adamjee Cantonment College

- **GPA:** 4.92 out of 5.00

May 2015 - May 2017

Dhaka, Bangladesh

### Secondary School Certificate

Feni Government Pilot High School

- **GPA:** 5.00 out of 5.00

Jan 2010 - May 2015

Feni, Bangladesh

## Work Experience

### Research Assistant

LaSSET, Brac University

- Indigenous Mission Payload Design for 2U CubeSat
- Payload design for remote data collection using LoRa for 2U CubeSat
- DL based surface analysis for smooth navigation of UGV

Nov 2022 - Current

Dhaka, Bangladesh

### Project Engineering Manager

BracU Dichari

- Developed an autonomous rescue rover and a drone employing cutting-edge technology while leading a team of forty people. For both the rover and the drone, we utilized SLAM and ROS.
- Developed Image Meta-Data manipulation system to construct 3D mesh.
- Employed Deep Learning based Mannequin detection with 95% accuracy. Moreover, developed a system for automated risk assessment.
- **Technical Skills:** AI, Python, Embedded C, ROS, Linux, Git, Wireless Communication, Circuit Development

Jan 2022 - September 2022

Dhaka, Bangladesh

### Technical Team Lead

BracU Mongol Tori

- Developed world's one of the finest Mars Rover. Lead 30 members team to make an intelligent rover.
- Designed vision and GPS based autonomous navigation system.
- Developed everything from scratch. Including navigation system and graphical user interface.
- **Technical Skills:** AI, Python, Embedded C, OpenCV, Bash, Git.

Dec 2020 - Dec 2021

Dhaka, Bangladesh

### DevOps Intern

InsideMaps Inc.

- Worked on 3D visualization and mapping technology.

Sep 2021 - Dec 2021

Dhaka, Bangladesh

## Skills

### Programming

Python (Pandas, django, tkinter, PyTorch, NumPy, Scikit-learn. etc.), ROS (Gazebo, Rviz, RQT, TF, etc. ), Docker, JAVA, C/C++, HTML/CSS, JavaScript, SQL, MongoDB, OracleDB

### Miscellaneous

Linux, Shell (Bash/Zsh),  $\text{\LaTeX}$ (Overleaf), Tableau, MS office 365, Git, Heroku, Proteus

### Soft Skills

Leadership, Team Management, Time Management, Teamwork, Critical Thinking, Problem-solving, Documentation, Engaging Presentation.

## Scholarship and Achievements

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2022	<b>4th &amp; Perseverance Award</b> , European Robotics League	Poland
2021	<b>4th</b> , KIBO Robot Programming Challenge	Bangladesh
2021	<b>Global Finalist</b> , Earth Observation Hackathon	USA
2021	<b>9th</b> , International Rover Design Challenge	India
2021	<b>3rd</b> , University Rover Challenge (URC)	USA
2017	<b>Best Contributor Award</b> , Neutrino ACC Science Club	Bangladesh
2016	<b>National Champion</b> , IBBL 2nd ACC National Science Carnival	Bangladesh
2015	<b>Talentpool Scholarship</b> , Secondary School Certificate Examination	Bangladesh
2013	<b>Talentpool Scholarship</b> , Junior School Certificate Examination	Bangladesh
2009	<b>General-grade Scholarship</b> , Primary School Certificate Examination	Bangladesh

## Research Interests

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<b>Robotics</b>	I love building intelligent machines. It excites me whenever I see a machine is making decisions itself. I have an interest in embodied AI in Robots.
<b>3D SLAM</b>	I have interests in autonomous navigation, self driving vehicle, simultaneous localization and mapping.
<b>UAV</b>	Autonomous Missions, Remote Sensing, 3D Mapping
<b>Cube Satellite</b>	Low power consumption and cutting edge AI on satellite

## Languages

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<b>English</b>	Professional proficiency
<b>Bengali</b>	Native proficiency

## Publications

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- Jahir Uddin, Muntasir Ahad, Abdulla Hil Kafi, Wireless Event Based Kill-switch for Safe & Autonomous UAV Operations, ICEIC 2023 (Accepted)
- Jahir Uddin, Firoz Wadud, Rezwana Ashrafi, Md. Khalilur Rhaman, Md. Golam Rabiul Alam, Landing with Confidence: The Role of Digital Twin in UAV Precision Landing, ICNS 2023 (Accepted)

## Workshops

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- UAVBuzz: Practical Approach To Build UAV, IEEE AESS BracU SC, MD Mojammel Haque Shourobh, Jahir Uddin, MD Firoz Wadud (2022)
- Bangladesh Mars Rover Conference, Mars Society Bangladesh, BracU Mongol Tori(Jahir Uddin, MD Firoz Wadud, Hashibul Islam), MIST Mongol Barota, IUT Avijatrik (2021)
- Workshop on Cyber Security, Jahir Uddin, RIGHT, Daffodil Internation University, Bangladesh(2020)

## Volunteer and Social Works

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<b>Founder</b>	July 2014 - Current
Ektu Anander Khoje	Feni, Bangladesh
<ul style="list-style-type: none"><li>It is a foundation that gives underprivileged kids access to sports equipment and educational resources.</li><li>Website</li></ul>	