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

MS in Computer Science
August 2023 - Current

University of Nebraska-Lincoln
Nebraska, USA

- Working as a Graduate Research Assistant

BSc in Computer Science
May 2018 - Dec 2022

Brac University
Dhaka, Bangladesh

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

Higher Secondary School Certificate
May 2015 - May 2017

Adamjee Cantonment College
Dhaka, Bangladesh

- **GPA:** 4.92 out of 5.00

Secondary School Certificate
Jan 2010 - May 2015

Feni Government Pilot High School
Feni, Bangladesh

- **GPA:** 5.00 out of 5.00

Work Experience

Graduate Research Assistant
August 2023 - Current

NIMBUS Lab, University of Nebraska-Lincoln
Nebraska, USA

Graduate Research Assistant
Nov 2022 - May 2023

LaSSET, Brac University
Dhaka, Bangladesh

- 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

Project Engineering Manager
Jan 2022 - September 2022

BracU Dichari
Dhaka, Bangladesh

- 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

Technical Team Lead
Dec 2020 - Dec 2021

BracU Mongol Tori
Dhaka, Bangladesh

- 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.

DevOps Intern
Sep 2021 - Dec 2021

InsideMaps Inc.
Dhaka, Bangladesh

- Worked on 3D visualization and mapping technology.

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), 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

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

Research Interests

Robotics	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.
3D SLAM	I have interests in autonomous navigation, self driving vehicle, simultaneous localization and mapping.
UAV	Autonomous Missions, Remote Sensing, 3D Mapping
Cube Satellite	Low power consumption and cutting edge AI on satellite

Languages

English	Professional proficiency
Bengali	Native proficiency

Publications

- Jahir Uddin, Muntasir Ahad, Abdulla Hil Kafi, Wireless Event Based Kill-switch for Safe & Autonomous UAV Operations, ICEIC 2023
- 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

- 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

Founder *July 2014 - Current*
Ektu Anander Khoje *Feni, Bangladesh*

- It is a foundation that gives underprivileged kids access to sports equipment and educational resources.
- Website