MD. Rafid Khan

Robotics Engineer, Wireless Communication & Computer Vision

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Summary

Computer Science & Engineering graduate of BRAC University, specializing in wireless communication and computer vision for autonomous systems. Former Team Lead of BRACU Mongol-Tori, the university's Mars rover team, with three consecutive years of University Rover Challenge experience. Actively mentor undergraduate students in robotics and intelligent systems.

Education

BRAC University *Jan 2022 – May 2026*
B.Sc. in Computer Science and Engineering, Dhaka, Bangladesh CGPA 2.88

Saint Joseph Higher Secondary School *Jul 2018 – Apr 2020*
Higher Secondary School, Dhaka, Bangladesh GPA 5.00

Technical Skills

Programming Languages: C/C++, Python, Java, JavaScript, SQL, Bash, HTML, CSS, Intel 8086 Assembly Language

Tools: Git, VS Code, SOLIDWORKS, MATLAB, Wireshark, LaTeX, LTspice, Cisco Packet Tracer

Databases: MongoDB, MySQL

Frameworks: Bootstrap, React.js, next.js, Node.js, Express.js, Flask, Django

Operating Systems: Linux, Windows

Experience

Team Lead *August 2025 – June 2026*
BRACU Mongol-Tori

- Led project planning and execution across rover development activities.
- Oversaw rover-to-command-station communication strategy and performance improvements.
- Directed team priorities through strategic planning and coordination.

Co-Team Lead *Dec 2024 – May 2025*
BRACU Mongol-Tori

- Design and implementation of redundant non line of sight rover-to-command-station communication protocols.
- Assisted in analyzing and improving rover-to-command-station communication performance.
- Coordinated team activities and contributed to strategic planning.

Network and Vision Sub-Team Lead *Jan 2024 – Dec 2024*
BRACU Mongol-Tori

- Maintaining rover to base seamless point-to-point communications.
- Real-time analysis and optimization of visual feed from Rover.

Leadership & Strategic Partnerships

Sponsorship & Business Development Lead *July 2024 – July 2026*
BRACU Mongol-Tori, BRAC University, Dhaka, Bangladesh

- Established strategic industry-academia collaborations and secured MyActuator, SATEL, SBG Systems like others international sponsors, pitching technical proposals that translated the team's engineering roadmap into partner-facing value propositions.
- Established strategic industry-academia partnerships by securing sponsorships from international technology companies including SBG Systems, SATEL, and MyActuator, translating the team's engineering roadmap into compelling technical value propositions.

Projects

Jogajog: A communication platform during 2024's internet outage
Daily Star coverage

- A communication platform run under physically interconnected nodes, built with NextJS and MySQL.
- The platform used the broadband connection, allowing 34,000+ users to communicate during the internet outage of student protests of July 2024.

Network Speed Monitor via Arduino Nano
reverseRAFID/pc-network-speed-monitor

- Real-time speed monitor via 16x2 LCD display using Arduino Nano.

Shohojatri: split fare, share ride!
reverseRAFID/Shohojatri

- The innovative ride-sharing service that makes daily life easy and economical.
- An academic project for CSE370: Database Management, CSE, BRAC University.

Competition Experience

University Rover Challenge 2026 *Jun 2026*
The Mars Society, Utah, USA

- Placed **7th** among 116 international teams as Team Lead, owning comms/vision subsystem strategy and cross-team technical direction.

University Rover Challenge 2025 *Jun 2025*
The Mars Society, Utah, USA

- Placed **8th** among 118 international teams.
- Co-Team Lead: responsible for rover-to-command-station communications, real-time visual-feed analysis, and coordination of mission operations.

University Rover Challenge 2024 *Jun 2024*
The Mars Society, Utah, USA

- Placed **21st**, serving as Network and Vision Sub-Team Lead, responsible for rover-to-command-station communication and real-time visual feed analysis.

Mission Oz 2022 *2022*
Team Enigma Systems

- Placed **9th**

National High School Programming Contest 2016 *2016*
Junior Category

- Placed **21st**

National High School Programming Contest 2015 *2015*
Secondary Category

- Placed **11th**

Certificates & Training

Amateur Radio Licence *May 2025*
Bangladesh Telecommunication Regulatory Commission

References

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