Rudraneel Bhattacharyya

Electronics and Communication Engineering
Bachelor of Technology
National Institute of Technology, Agartala

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GitHub
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Education

- **National Institute of Technology, Agartala** *2022 - 2026*
  Bachelor of Technology in Electronics and Communication Engineering CGPA: 8.40
- **Don Bosco School, Agartala** *2020 - 2021*
  Central Board of Secondary Education: Senior Secondary (XII) Percentage: 88.83%
- **Don Bosco School, Agartala** *2018 - 2019*
  Central Board of Secondary Education: Secondary (X) Percentage: 94%

Experience

- **MBB Airport | Airports Authority of India** *May 2025 - June 2025*
  Summer Trainee Agartala
  - Completed internship at **Communication Navigation Surveillance** department, working with navigation aids like **Instrument Landing System, Automatic Dependent Surveillance–Broadcast**, etc. Gained hands-on experience in **analog/digital radio, amplitude modulation**, and VHF/UHF communication applied in air traffic operations.

Personal Projects

- **Peer-to-Peer TCP Chat App**
  Real-time peer-to-peer chat app using Python TCP sockets and multithreading.
  - Developed a terminal-based chat application enabling two-way real-time communication over LAN using **Python's TCP sockets**.
  - Implemented **multi-threading** to allow simultaneous sending and receiving of messages without blocking.
  - Simulated **client-server communication model** and demonstrated understanding of networking fundamentals like IP addressing and port binding.
  - **Tools and Technologies used:** Python, Socket Programming, TCP/IP, Threading, GitHub.
- **Multi-Robot Warehouse Automation Simulator**
  Python-based simulation of autonomous robots performing parcel pickup, routing, and delivery.
  - Developed a Python-based multi-robot warehouse automation simulator featuring A* pathfinding and dynamic task allocation.
  - Simulated autonomous parcel pickup and delivery with collision avoidance and real-time route replanning.
  - Modeled core principles of robotic coordination and warehouse logistics used in modern automation systems.
  - **Tools and Technologies used:** Python, Matplotlib, Dynamic Task Allocation, GitHub.

Technical Skills and Interests

Core Electronics: Analog & Digital Communication, Computer Networking, Microprocessors and Microcontrollers
Languages: C, C++, Python (Basics)
Analytical: Problem-Solving, Data-Driven Decision Making, Critical Thinking
Tools: MATLAB, VS Code, Git, GitHub

Achievements

- Solved **475+** questions on **GeeksforGeeks** with a rating of **3 star**.
- Solved **250+** questions on **LeetCode** with a peak rating of **1583**.
- Certified in **Embedded Systems** by NIELIT Calicut.
- Selected for **McKinsey Forward Program**, focused on leadership, assessment skills, and digital adaptability.

Positions of Responsibility

- **Technical Content Writer,** GeeksforGeeks *May 2024 - Mar 2025*
- **Managed Network Expert,** Chegg Inc. *Aug 2023 - Aug 2024*