Niaz Nafi Rahman

niaznafirahman@gmail.com 01745984130 in/niaz-rahman github.com/NiazNafi

SUMMARY

Computer Science graduate working as a Product Executive at US-Bangla Airlines, where I help build aviation software that does more with less. Global finalist at RoboCup Rescue 2024 as AI team lead. Bangla ambigram artist with a self-marketed body of commissioned work.

EDUCATION

Bachelor of Science - BS, Computer Science

BRAC University • 2025 • 3.90 CGPA

Higher Secondary School Certificate

Notre Dame College • July 2020 • 5.0 GPA

Secondary School Certificate

Ideal School and College • 2018 • 5.0 GPA

EXPERIENCE

Executive - Product

US Bangla Airlines Ltd **September 2025 - Present, Dhaka, Bangladesh**

- Translated operational workflows from the Airport Service Department into developer-ready specifications and user stories across **7 functional modules**.
- Introduced **AI-assisted prototyping** into the pre-product development workflow, replacing wireframe-only handoffs with clickable prototypes across all **7 modules** and earning strong stakeholder buy-in ahead of build.
- Collaborated with UI/UX designers to streamline product interfaces, validating flows with end users at the prototype stage and refining designs before development began.
- Ran competitive analysis of **four Departure Control System vendors**, building the feature matrix used for platform evaluation, and **authored full technical documentation** for the platform.

Founder & Artist

Ghurni Lipi **February 2020 - Present**

- ghurnilipi.com
- Produce original Bangla ambigrams — a rare form of art — and sell them directly through ghurnilipi.com and Instagram.

Student Tutor

BRAC University **February 2024 - May 2025**

- Supported 300+ students across interactive lab sessions and personal consultations in Python, object-oriented programming, and data structures and algorithms.
- Managed script review, assignment checking, and supervisor coordination at 15 hours per week, ensuring consistent progress tracking and engagement.

LEADERSHIP AND EXTRACURRICULARS

Champion — Intra University Junior Programming Contest 2022

BRAC University

- Team Name - Ode to Code
- Standings

AI Team Lead | RoboCup Rescue 2024 Global Finalist

BRAC University • BRACU Alter • February 2023 - August 2024

- **Team Leadership:** Led the 5-member AI team within BRACU Alter, delivering vision and autonomy for a rescue robot that reached global finalist at RoboCup Rescue 2024.

- **System Integration:** Deployed ROS Noetic rover navigation and object detection on optimised edge hardware (Jetson Xavier, Raspberry Pi), with a computer vision pipeline hitting 95% accuracy on hazmat sign detection.
- **Strategic Cost-Saving:** Proposed a 2D/3D mapping architecture that reduced hardware costs by 50% while holding performance.

PROJECT

Personal Project
Bangla Ambigram Illustrator Panel Extension
github.com/NiazNafi/Bangla-ambigram-illustrator-panel

- **A letter pairing is drawn once;** the tool stores it, finds it again by letter, places it back on the artboard, and records which pairings each finished word was built from. Everything lands on disk as readable files and two spreadsheets. Built with Node.js.

AI Tutoring Platform
November 2024 - December 2024

- Github link
- Full-stack EdTech platform using Groq API for low-latency LLM inference, delivering contextual MCQ generation, an interactive chatbot, and real-time test feedback

Academic Project
BRACU ALTER SYSTEM SOFTWARE
BRACU ALTER • github.com/NiazNafi/Bracu-Alter • August 2026 - August 2026

- Built the YOLOv5 detection pipeline, RGB-D 3D localization, and ROS TF mapping behind the rover's autonomy stack, with a PyQt5 GUI for live annotation and result capture.

Undergraduate Thesis
Bridging Human and Model Perspectives: A Comparative Analysis of Political Bias Detection in News Media Using Large Language Models

- arXiv link.
- Built a 15,000-article human-annotated bias corpus (FIGNEWS 2024 subset) with substantial inter-annotator agreement (κ = 0.65–0.68)
- Benchmarked five model families across three inference regimes, quantifying human-machine alignment and exposing systematic model reliance on lexical polarity heuristics

AWARDS & HONORS

Champion - BRACU Intra University Junior Programming Contest 2022
BRAC University • 2022

Vice Chancellor's List
Brac University • 2021-2025

Dean's List
Brac University • 2021-2025

Qualified for the Robocup Rescue 2024 (Eindhoven, Netherlands)
Robocup Federation • 2024

SKILLS

Product management: Requirements Gathering, Stakeholder Management, User Stories, Wireframing, Agile Methodologies, User-Centric Design, PRD documentation.

Product Prototyping: Lovable, Gemini, React, Tailwind CSS.

Creative & Innovative Skills : Design thinking, visual creativity (ambigrams, design concepts)

Technical:

- **Languages:** Python (Proficient), Java, C++
- **AI Development:** LangChain, Huggingface Transformers, OpenAI, OpenCV, PyTorch, Yolo, NumPy, Pandas, Matplotlib, Seaborn
- **Web Development:** React, JavaScript, HTML/CSS, Express.js, Tailwind CSS
- **Databases:** MySQL, PostgreSQL
- **Hardware & Robotics: Jetson Xavier, Raspberry Pi, Realsense, Lidar, Robotic Operating System (ROS), Autonomous Navigation**

REFERENCES

Farig Yousuf Sadeque
Associate Professor • Department of Computer Science and Engineering, BRAC University • farig.sadeque@bracu.ac.bd • 01756858357

Abdulla Hil Kafi
Lecturer • Department of Electrical and Electronic Engineering, BRAC University • abdulla.kafi@bracu.ac.bd