

# Md Istahak Islam

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 [github.com/Istahak](https://github.com/Istahak)  Codeforces: [\\_0Istahak](#) (Rating: 1764 - Expert)

## Education

### University of Dhaka

*Expected Graduation: January 2026*

Bachelor of Science in Computer Science and Engineering

CGPA: 3.80/4.0 (until Semester 7)

**Relevant Coursework:** Data Structures, Algorithms, Web Development, Database Systems, Operating Systems, Computer Networks, Software Engineering, Machine Learning

## Technical Skills

- **Programming Languages:** C++, C, Python, Java, JavaScript
- **Web Technologies:** React.js, Node.js, HTML5, CSS3
- **Databases:** MySQL, PostgreSQL
- **Tools & Platforms:** Git, Firebase, Linux, VS Code
- **Others:** Data Structures & Algorithms, Problem Solving

## Achievements

- **Codeforces:** Handle: [\\_0Istahak](#) — Rating: **1764** (Expert) — Max Rating: **1764**
- **CodeChef:** Handle: [istahak\\_27](#) — Max Rating: **2020** (5-Star)
- **AtCoder:** Handle: [istahak\\_0](#) — Max Rating: **1571**
- **Contest Achievements:**
  - **9th Place** - Samsung R&D Institute Bangladesh Code Contest 2025 (Onsite Round)
  - **5th Place** - ICPC Preliminary Dhaka Region 2025 with Team DU\_Odyssey
  - **6th Place** - CUET Inter University Programming Contest 2025 with Team DU\_Odyssey
  - **6th Place** - DUET Inter University Programming Contest 2025 with Team DU\_OBLIVION
  - **8th Place** - Uttara University Inter University Programming Contest 2025 with Team DU\_OBLIVION

## Research Experience

### Spatial-Temporal Granger Causality in Event Sequences

*Ongoing*

*Undergraduate Researcher — University of Dhaka*

- Developing spatial-temporal Hawkes process extension with MLE-SGLP algorithm and event-region encoding for intra/inter-dependencies
- Validated on real-world datasets uncovering spatial propagation patterns for epidemics, crime, and social networks

# Projects

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## Footpath Encroachment BD - Urban Surveillance ML System 2025

Technologies: Python, TensorFlow, MobileNetV2, DenseNet121, CNN

- Developed CNN classification system achieving 99.02% accuracy (Custom CNN) and 90.67% multi-class accuracy (MobileNetV2) for detecting footpath encroachment in Dhaka
- Applied transfer learning with multiple architectures (MobileNetV2, DenseNet121, VGG16, ResNet50) addressing class imbalance
- Built automated surveillance pipeline supporting civic authorities in urban encroachment response

## SeedHope - Fundraising Web Application 2024

Technologies: Java Spring Boot, TypeScript, React.js, PostgreSQL

- Developed Java Spring Boot backend for full-stack fundraising platform with campaign management, authentication, and donation processing
- Implemented RESTful APIs with real-time campaign tracking and payment integration
- Collaborated with frontend team delivering social impact features for Bangladesh community

## Farmer Support Platform 2023

Technologies: Node.js, Python FastAPI, React.js, SQLite

- Built full-stack platform connecting farmers with experts using Node.js and Python FastAPI backend
- Implemented expert consultation, community forums, and farming calendar with frontend components
- Integrated weather API delivering location-based forecasts for data-driven farming decisions

## Kodeshell - Competitive Programming Mobile App 2022

Technologies: Java, Android, RESTful APIs, Firebase

- Developed Android app consolidating Codeforces, CodeChef, AtCoder, and LeetCode with unified interface
- Implemented API integration fetching real-time profiles, ratings, and contest schedules with notification system
- Integrated community features for chat, posts, and competitive programming discussions

## Extracurricular Activities

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- **Competitive Programming Teams:** Active member of DU\_Odyssey and DU\_OBLIVION, competing in national and international contests
- **Problem Solving:** Solved 2000+ problems across Codeforces, CodeChef, AtCoder, and LeetCode platforms
- **Community Engagement:** Contributed to competitive programming community through Kodeshell app development