

YASIR RAHMAN

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About Me

I'm a **Software Engineer**, **Lecturer**, and **Researcher** with interests in **cybersecurity**, **secure software systems**, **trustworthy AI**, and **AI for healthcare**, aimed at real-world, decision-critical systems. I aim to pursue a **PhD** at this intersection to bridge research with practical impact.

Education

Chittagong University of Engineering and Technology
BSc in Computer Science and Engineering

Feb, 2020 – Jun, 2025
CGPA: 3.53 / 4.00

- Awarded **merit scholarships** in all 8 semesters and represented CUET in **ICPC Dhaka Regional Contests**.

Professional Experience

Academia

International Islamic University Chittagong (IIUC)

February 2026 – Present

Adjunct Lecturer, Dept. of Computer Science and Engineering

Chittagong, Bangladesh

- Teaching undergraduate courses in **Algorithms** (theory & lab), **Compiler Design** (theory & lab), and **Competitive Programming II** (lab).
- Developed a content website, [Yasir Explains](#), to supplement course material for students.

Industry

Bevy Commerce

July 2024 – Present

Software Engineer (L3)

Ontario, Canada (Remote)

- Implemented backend services and frontend features for an **online news portal** serving over **500,000 DAU**.
- Developed a **data migration tool** to move data from **Magento** and **NetSuite** to **Shopify** using **Shopify GraphQL mutations**, successfully migrating over **5 million data points**.
- Built **SFTP**-based file transfer pipelines and automation scripts for client data migrations, cutting down manual intervention and reducing failed transfers.

BreakByte

December 2023 – June 2024

Software Engineer

Chittagong, Bangladesh

- Implemented secure authentication and authorization for a full-stack blogging platform and integrated the **Tiptap** editor for rich content creation.
- Developed a scalable **multi-tenant architecture**, reducing onboarding time by approximately **50%**, and deployed the platform on **AWS EC2/S3** for secure, scalable infrastructure.

Research Experience

Attack Scenarios in Cross-Chain Blockchain Interactions

2026 – Present

Ongoing Research, CUET

Supervised by Dr. Rahma Bintey Mufiz Mukta

- Conducting a comprehensive survey and taxonomy of security vulnerabilities and attack patterns in cross-chain communication protocols (under preparation).

Predictive Model for Birth Delivery Mode Using EHG Signals

2023 – Present

Research Assistant (Freelance) – supporting **Dr. Rubana Hoque Chowdhury**'s PhD research

GitHub Repository: [GitHub](#)

- Worked as **research assistant** to **Dr. Rubana Hoque Chowdhury** on her PhD research, in an iterative loop: reviewing the literature she supplied, implementing the proposed methods in code, then jointly experimenting on and refining the resulting models under her direction.
- Achieved **99% accuracy** for cesarean vs. vaginal delivery prediction and **94% accuracy** for spontaneous vs. induced delivery classification, using machine learning and geometric feature extraction on Electrohysterogram (EHG) signals.
- Re-implemented and validated methods from prior published EHG studies, built the analysis and figures behind **two of her publications** and her **annual PhD committee reviews**, and supplied experimental evidence throughout her PhD journey – from **proposal defence** through **dissertation submission** and **final defence** – continuing the collaboration on her **post-PhD research (2026–present)**.

Bengali Keywords Extraction from Bengali Blog Using Transformer-Based Approach

2024 - 2025

Undergraduate Thesis Research

CUET

- Supervised by **Dr. Muhammad Ibrahim Khan**. Developed a comprehensive Bengali blog dataset of **9,012 annotated posts** and proposed a **transformer-based dual-encoder architecture** achieving **84% F1@10 score** and did some comparison analysis with the existing methods.

Publications

- (2026). *Analysis of electrohysterogram signals for predicting obstetric outcome using machine learning methods: a scoping review*. **BMC Pregnancy and Childbirth**, Springer Nature (Q1). ([Link](#))

Projects

Rilo EMS (Employee Management System) *Next.js, TypeScript, MongoDB, ShadCN*
GitHub Repository: <https://github.com/ChyYasir/rilo-ems> *December 2024 – January 2025*

- **Led an 8-member development team** to design and ship a full-featured employee management system in **Next.js/TypeScript**, owning the architecture and code-review process that kept the codebase consistent across all 8 contributors.

Easy Tuition (Tuition Management System) *MERN Stack, Material UI*
GitHub Repository: <https://github.com/ChyYasir/EasyTuition>
Live Demo: <https://easy-tuition.onrender.com/> *October 2023 – June 2024*

- Built a **MERN-stack** admin dashboard with a tutor-matching algorithm and optimized search/filtering across **10,000+ student and tutor records**, cutting administrative decision-making time from **3+ hours to 5–10 minutes**.

Technical Skills

- **Languages:** C, C++, Python, JavaScript
- **Databases:** MongoDB, PostgreSQL, Redis, MySQL
- **Frameworks and Libraries:** React, Node.js, Express.js, Next.js, PyTorch, Scikit-learn, Matplotlib, Pandas
- **Tools:** Git, Docker, GitHub Actions
- **Cloud & DevOps:** AWS (EC2, S3), Docker Compose

Awards & Achievements

- **ICPC Regionalist – Dhaka Region – 2021–22 (Rank 48) & 2022–23 (Rank 41)**
- **East Delta University Engineering Day Programming Contest 2022 – Rank 1**
- **CUET Inter University Programming Contest 2022 – Rank 10**
- **BUET Inter University Programming Contest 2022 – Rank 47**
- **Sylhet Inter University Junior Contest – Rank 12**
- **2nd Runner-up – CUET Intra Junior Programming Contest 2021 (Rank 3)**
- **Top 16 Finalist – BUET CSE FEST 2024 Hackathon (National) | [GitHub](#)**
- **2nd Runner-up – Electrical Surge 2.0 Hackathon (CUET IEEE)**
- **2nd Round – DEVOPS Hackathon: Building Platform Using Cloud (Poridhi, Powered by Brain Station 23)**
- **Solved 2000+ problems** across online judges – [Codeforces: CHY_YASIR](#), [AtCoder: Chy_chy](#)

Co-curricular Activities

CUET Computer Club *2022 – 2025*
Instructor & DSA Mentor – CP Bootcamp / Competitive Programming Group *Chittagong, Bangladesh*

- Conducted training sessions and regular mentoring on Data Structures & Algorithms (Trees, Graphs, Binary Search, Bitmask, Segment Trees, etc.) for students preparing for ICPC and university contests. **Recorded Sessions:** [YouTube Channel](#)

IEEE Computer Society – CUET Student Branch *2024 – 2025*
Vice Chair *Chittagong, Bangladesh*

- Organized an intra-CUET microservice hackathon and a competitive programming contest, and conducted multiple educational sessions on software engineering and competitive programming.

Certifications

- **ICPC Dhaka Regional Contest – 2021–22, 2022–23 | [View Certificate](#)**

References

Dr. Muhammad Ibrahim Khan Professor, Dept. of CSE Chittagong University of Engineering and Technology Email: muhammad_ikhan@cuet.ac.bd Contact: +880 1713-018506	Dr. Rubana Hoque Chowdhury Assistant Professor, Dept. of EEE Northern University Bangladesh Email: rubana@nub.ac.bd, rubanachy@gmail.com Contact: +880 1790-710407	Dr. Rahma Bintey Mufiz Mukta Assistant Professor, Dept. of CSE Chittagong University of Engineering and Technology Email: rahmamukta@cuet.ac.bd Contact: +880 1713-018506
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