

ASIF IHTEMADUL HAQUE

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Education

MSc in Computer Science, Western University Ontario, Canada 2025 – 2026

- Fully funded Research Scholar supervised by Dr. Mike Domaratzki, researching machine learning and AI approaches for forecasting environmental embeddings to improve crop performance prediction.
- CGPA: 4.0 / 4.0

BSc in Computer Science and Engineering, Bangladesh University of Engineering and Technology Graduated in June 2024

Work Experience

Graduate Teaching Assistant, Western University Ontario — Canada Jan 2025 – April 2026

- Courses: *Software Tools and Systems Programming, Information Systems and Design, Specification, Testing and Quality*

Software Engineer L2, [Chaldal](#) — Bangladesh Jun 2024 – Dec 2024

- Built a **customer lifecycle state machine** to identify high-propensity buyers, delivering higher contact-to-order conversion and faster time-to-first-contact.
- Developed a **type-safe workflow** in **F#** and **TypeScript**, cutting change-related defects and accelerating delivery.
- Orchestrated cross-service **cron** and RPC with idempotency; deployed on **Service Fabric**.

Skills

Languages Golang, C/C++, Python, Java, JavaScript, F#, C#, TypeScript, Assembly, Bash

Tools & Frameworks gRPC, Docker, AWS, Terraform, Service Fabric, Git, .NET, React, Nextjs, Django

Soft Skills Critical thinking, Collaboration, Ownership

Projects

Distributed Lock Service [Golang, Docker, WebSocket, go-RPC, REST API] [Github](#)

- Co-developed a fault-tolerant distributed lock service from scratch using Raft, enabling reliable coordination and eliminating access conflicts across services.
- Implemented automated leader election and failover recovery to minimize downtime and maintain continuous availability, plus safeguards (fencing tokens, auto-expiry) and real-time lock-management APIs for responsive performance.

TubeCast [Go, Apple Podcasts, Internet-Archive and Dropbox Cloud API, Docker, Cron, tvview TUI] [Github](#)

- Created a dockerized open-source CLI tool that transforms YouTube channels into personal podcast shows, allows streaming on any RSS-compatible podcast apps.

File Compression Engine [Golang, HTTP, Bash] [Github](#)

- Built from scratch a command-line file compression engine supporting a fully standards-compliant end-to-end Gzip, DEFLATE, LZSS, and Huffman formats under a single unified interface.

Online Problem Solving Code Editor [NextJs, Typescript, Firebase, shadcn, TailwindCSS] [Github](#)

- Developed a full-stack application for managing code submissions and timed contests, featuring VM-based online compilation, multi-error parsing, a robust problem database.

Creating a C Compiler from Scratch [bison, x86 Assembly Code Emulator, WSL]

- Developed a C compiler from scratch, incorporating Lexical, Syntax, and Semantic Analysis, with advanced features like on-the-fly code generation and Intermediate Code Generation (ICG) to understand low-level system architecture.

Achievements & Awards

2025 **Solved 1600+ problems overall**, on [LightOJ](#), [Codeforces](#), [AtCoder](#), [CodeChef](#), [LeetCode](#), [USACO](#), [CSES](#), [Timus](#) [StopStalk Profile](#)

2023 **Codeforces Rating – Specialist**, *Ihtemadul* (1464 – max rating) [Codeforces Profile](#)

2022 **18th Position – National Ranking**, Google Hash Code 2022

2021 **Global Ranking: 695th**, Google Kick Start 2021 Round B

2021 **30th Position**, ICPC Preliminary, Dhaka