

Adnan Bin Wahid

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EDUCATION

University of Dhaka - Institute of Information Technology

CGPA: 3.90 (till date)

Bachelor of Science in **Software Engineering**

Expected Date of Graduation: Sept 2026

Notre Dame College

GPA: 5.00

Higher School Certificate (HSC) in **Science**

Year of Examination: 2021

Hasan Ali Government High School, Chandpur

GPA: 5.00

Secondary School Certificate (SSC) in **Science**

Year of Examination: 2019

TECHNICAL SKILLS

Programming Languages: C, C++, Python, JavaScript, TypeScript, Java, C#

Framework & Libraries: React.js, Angular, Node.js, Express.js, FastAPI, ASP .NET Core, Tailwind CSS, Spring Boot, Sequelize

Database Technologies: PostgreSQL, MySQL, MongoDB, MS SQL Server, SQLite

Testing & Build Tools: JUnit, JaCoCo, Mutation Testing, Maven

Developer Tools and Platforms: Git, GitHub, Wireshark, Docker, Swagger, Postman, Selenium, Nginx, Vercel, Render

Projects

RepoAlign - AI-driven semantic consistency checker VS Code extension | TypeScript, VS Code API, Python, FastAPI, SQLite, Sentence-Transformer, ts-morph, Z3 **2026 - Present**

- Repository Intelligence & Semantic Analysis: Designed and developed an AI-powered VS Code extension inspired by [SemanticForge \(arXiv:2511.07584\)](#) to extract repository-wide semantics using AST-based analysis, structured indexing, and cross-file dependency modeling, helping reduce manual code review effort and improve architectural consistency across large codebases.
- Semantic Retrieval & Validation: Engineered a hybrid pipeline combining ts-morph-based analysis, embedding similarity, graph-based retrieval, and planned SMT-backed validation to detect type, structural, and logic-level inconsistencies beyond traditional linting.
- Developer Workflow Integration: Integrated a FastAPI backend with real-time indexing, pre-commit validation, testing, and observability to deliver scalable and reliable repository-level code intelligence within VS Code.
- Github Link: <https://github.com/adnan-bin-wahid/repoalign-vscode>

Liberation War Museum Archival System | ReactJS, NodeJS, Express.js, PostgreSQL, Sequelize **2025**

- System Modernization & Migration: Designed and implemented a scalable platform to migrate 55,000 oral history records and 33,000 artifacts from disorganized Word documents into a centralized, indexable database.
- Enhanced Data Engineering: Engineered an automated tagging and categorization system that replaces manual, error-prone indexing, significantly improving the searchability, accessibility, and analysis of historical collections.
- Github Link: <https://github.com/adnan-bin-wahid/LWM-Management-System.git>

Shikhon360 - Interactive Educational Platform | React.js, Node.js, MongoDB, Express.js, Azure TTS, Google Generative AI, Vercel, Render **2025**

- Co-developed an educational platform with STEM simulations, AI tutoring, multilingual TTS, and a collaborative research platform.
- Github Link: <https://github.com/adnan-bin-wahid/SNBoseHack.git>

Gontobbo: Distributed Ride-Sharing System | React, MongoDB, NodeJS, JWT, Docker **2024**

- Built a scalable ride-sharing app with geolocation, fare estimation, JWT auth, and REST APIs; containerized with Docker and designed microservices for auth, mapping, and ride handling.
- Github Link: <https://github.com/adnan-bin-wahid/Gontobbo.git>

HashStego Vault | C, C++ **2023**

- Developed a C/C++ program utilizing image steganography and cryptographic hashing to securely embed, transfer, and verify data integrity over unsecured systems.
- Github Link: <https://github.com/adnan-bin-wahid/HashStegoVault.git>

Professional Experience

Software Engineer Intern | Kaz Software Limited

Oct 2025 - March, 2026

- Build frontend and backend features for JTI, Veny, and Virus Shield using Angular, .NET Core, MS SQL Server, and REST APIs, delivering responsive user interfaces, scalable application functionality, and RAG-based systems to enhance retrieval quality and support data-driven features.
- Worked in an Agile Scrum environment using Git, GitHub, Postman, Swagger, and VS Code, collaborating with team members to deliver features on time and improve code quality and development workflow

Leadership

IIT Software Engineers' Community | Assistant General Secretary

June 2025 – Present

Achievement

- Finalist in BUET CSE Fest 2025 Poster Presentation (Top 13 out of 121+ teams)
- 3rd Runner-Up, SN Bose Hackathon (National Level Competition with 80+ teams)