MD. Zihaul Islam Zihan

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Portfolio LinkedIn GitHub

Career Objective

Seeking an entry-level software engineering role with opportunities to learn through real-world projects, collaborate with experienced developers, and contribute to reliable, meaningful software solutions.

Education

American International University-Bangladesh (AIUB) Dhaka, Bangladesh
Bachelor of Science in Computer Science & Engineering Graduating: September 2026
CGPA: 3.96/4.00
Relevant Coursework: Data Structures, Algorithms, Advanced Web Technologies, Introduction to Database Management Systems.

Technical Skills

- **Front-End:** React.js, Next.js, TypeScript, JavaScript (ES6+), Tailwind CSS, HTML5, CSS3.
- **Back-End:** Node.js, Express.js, Nest.js, .NET Core.
- **Database:** PostgreSQL, MongoDB, MySQL, SSMS.
- **Languages:** JavaScript, TypeScript, PHP, Python, C#, C++, Java.
- **Tools & DevOps:** Git, GitHub, Vercel, Netlify, Postman, REST APIs.
- **Interpersonal Skills:** Communication, Collaboration, Problem Solving, Adaptability, Time Management.

Experience

XR Interactive | *Full-Stack Developer Intern* July 2026 – Present

Developing full-stack web applications and implementing third-party API integrations to enhance system functionality. Actively engaging in corporate client meetings to gather technical requirements and align software deliverables with business objectives.

Key Projects

1. Rokto Din | *Next.js 16, Nest.js, PostgreSQL, JWT, Tailwind* GitHub | Live Link
A full-stack, bilingual blood donation platform connecting donors with recipients based on location and real-time eligibility.

- **Frontend:** Developed using **Next.js 16** and **React 19**, featuring a multi-filter donor search and an eligibility calculator with timeline validation.
- **Security & Auth:** Architected a secure authentication system utilizing **HTTP-only JWT cookies**, custom API proxy routes, and email-based password recovery.
- **UI/UX:** Built a comprehensive donor dashboard with **Framer Motion** and **Tailwind 4** for toggling availability, paginated history, and client-side record exporting via **jsPDF**.

2. Contest Hub | *React.js, Node.js, Express.js, MongoDB, Firebase, Stripe* GitHub | Live Link
A comprehensive management platform for creating, entering, and reviewing competitive events with secure transactions.

- **Architecture:** Implemented a Role-Based Access Control (RBAC) system for Admins, Creators, and Users using **Firebase** and **JWT**.
- **Integrations:** Integrated **Stripe Payment Gateway** for secure user transactions and used **TanStack Query** for efficient server-state management.
- **Features:** Developed a dynamic dashboard featuring contest analytics, submission review workflows, and a historical log of winning entries.

3. StudySync | *React.js, Node.js, Express.js, MongoDB, Firebase, DaisyUI* GitHub | Live Link
An educational networking tool designed to connect students for collaboration based on shared subjects and complementary skills.

- **Backend API:** Developed a dynamic RESTful API using **Node.js** and **Express.js** to handle multi-parameter filtering and complex user profile matching.
- **Authentication:** Secured backend endpoints by implementing custom Express middleware to verify **Firebase** ID tokens, ensuring protected user sessions and data access.

- **Frontend:** Designed a modern, responsive UI with **DaisyUI** and **React Swiper**, including a seamless Dark/Light mode toggle for accessibility.

4. TrainXcel | *Next.js, Nest.js, PostgreSQL, React, JWT* GitHub | Live Link
An AI-powered, highly secure educational platform designed for Medical Representatives (MRs) with comprehensive examination and performance tracking.

- **AI Integration:** Implemented AI features to dynamically generate practice questions and evaluate MR video submissions, providing automated grading and personalized improvement suggestions.
- **Security & Architecture:** Architected a highly secure, Role-Based Access Control (RBAC) system utilizing **HTTP-only JWT cookies**, incorporating activity logs and a recycle bin for robust data management.
- **Assessment System:** Developed a complete examination module supporting timed and scheduled exams, exam groups, custom question generation, and detailed MR performance monitoring.

Publications

- **CCN: Cascaded Corrector Network Model for Predicting The Pathogenicity of DNA Variants in Retinal Dystrophy** View Publication
- **CSF: Cross-Subject Fusion Model for Stress Detection from Wearable Sensor Data**, 2026 IEEE International Conference on Signal Processing, Information, Communication and Systems (SPICSCON) – *Presented, pending publication*

Honors, Awards & Presentations

Conference Presenter | *IEEE SPICSCON 2026* View Certificate
Presented the research paper *"Design and Evaluation of Weather-Driven Prediction for Conditions Favorable to Jute Anthracnose Using Machine Learning"* (Paper ID: 784).

Conference Presenter | *IEEE QPAIN 2026* View Certificate
Presented the research paper *"CCN: Cascaded Corrector Network Model for Predicting The Pathogenicity of DNA Variants in Retinal Dystrophy"* (Paper ID: 660).

Dean's Award (3 Semesters) | *AIUB* View Certificate
Recipient of the Dean's Award for outstanding academic excellence, maintaining a consistent CGPA > 3.75.

Languages

- **Bangla:** Native
- **English:** Professional Proficiency