

Prottoy Sarker Diganto

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Summary

Computer Science undergraduate with a disciplined work ethic and experience delivering software projects from idea to implementation. Skilled in learning new technologies quickly, writing maintainable solutions, and collaborating effectively in team settings. Committed to continuous improvement and building high-quality systems.

Education

American International University-Bangladesh

B.Sc. in Computer Science and Engineering

CGPA: 3.83/4.00

Dhaka, Bangladesh

Jan 2023 – Ongoing

Technical Skills

- **Languages:** Python, C++, Java, C#, JavaScript, TypeScript
- **Frontend:** Next.js (React)
- **Backend:** Node.js, NestJS
- **Database:** MySQL, PostgreSQL
- **ML/Frameworks:** PyTorch
- **Testing:** API Testing (Postman), Test Case Design, Bug Reporting
- **Tools:** Git, GitHub, Jira

Projects

Expense Management System

Full-Stack Web Application

2026 – Present

Next.js, NestJS, PostgreSQL

- Building a full-stack expense tracking system with a responsive UI, secure authentication, and a structured relational data model.
- Developing REST APIs for user and expense workflows with validation, consistent error handling, and role-based access control.
- Integrating the Next.js frontend with backend endpoints; implementing forms, dashboard views, and session-aware navigation.
- **GitHub:** github.com/iamskyline49/advwbt

AgriVision Solution

Desktop Application

2025

C#, Windows Forms

- Developed a smart gardening desktop app to manage plant tracking, scheduling, and basic resource logging.
- Designed user-friendly screens and implemented core modules for input, storage, and record updates.
- **GitHub:** github.com/iamskyline49/AgriVision-Solution

Research Papers

Machine Learning for Macroeconomic Risk Management

Conference Submission (Under Review)

2026

- Developed predictive models (Linear Regression, Random Forest, LSTM) in Python; performed time-series preprocessing and evaluation.
- Implemented sequence-modeling experiments using PyTorch and applied XAI techniques to interpret predictions.

Aqua Guard: Smart Monitoring System

Conference Submission (Under Review)

2025

- Designed an IoT-based water quality monitoring prototype using Arduino and ESP8266 with sensor integration and alerting logic.

Extracurricular Activities

AIUB Photography Club

Photographer

AIUB

2023 – 2026

- Participated in events and workshops as a volunteer photographer while working under deadlines.

Sports

Cricketer

2015 – Present

- Represented Dhaka Division North in U14, U16, and U18 tournaments; played in AIUB Premier League (APL).

Interests

Full-Stack Web Development, REST API Design & Integration, Database Design, Machine Learning (Python/PyTorch), Software Quality & Testing, System Analysis, Cricket, Photography