



PROTTOY PAUL

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SUMMARY

- Software engineering student seeking a backend or full-stack development position leveraging academic knowledge in algorithms and practical web development experience.
- Demonstrated expertise in building full-stack applications, routing systems, and managing e-learning platforms for real-world users.
- Adept at applying deep learning, graph theory, and networking concepts to solve complex engineering challenges and link technical strengths to measurable results.

WORK EXPERIENCE

- Web Administrator, AMC mentor (Remote) Jan 2024 - Present
- Managed an active online e-learning platform utilizing Tutor LMS to ensure a seamless experience for users purchasing and accessing courses.
 - Diagnosed and resolved backend integration issues with the Stripe payment gateway, ensuring uninterrupted revenue flow and system stability.
- Mar 2024 - Jan 2025
- Junior Project Engineer, VIVEK (Dhaka)
- Developed and deployed the official website for The Vivek Foundation (thevivekfoundation.org) to establish and strengthen the organization's online presence.
 - Managed version control and deployment pipelines to ensure a reliable, accessible, and user-friendly platform.

EDUCATION

- Bachelor of Science in Software Engineering** Aug 2024 - present
Institute of Information Technology, University of Dhaka
- CGPA: 3.84
 - Relevant Courses: Theory of Computing, Computer Networking, Deep Learning & Artificial Neural Networks, Data Structures & Algorithms, Discrete Mathematics
- Higher Secondary Certificate (HSC)** Feb 2021 - Oct 2023
Notre Dame College, Dhaka
- GPA: 5.00 / 5.00
- Secondary School Certificate (SSC)** Jan 2016 - Nov 2021
Keshabpur Govt Higher Secondary School
- GPA: 5.00 / 5.00

ADDITIONAL INFORMATION

- Civic Involvement & Leadership: Joint General Secretary of the Dhaka University Student Association of Keshabpur (DUSAK), actively organizing community events and managing student initiatives.
- Awards & Extracurriculars:
 1. Member of the Notre Dame College Volleyball Team (Won two inter-college trophies, 2022)
 2. Recognized as "Best Scout" for leadership (2018)
 3. Two-time Inter-School Badminton Champion (2017, 2018)
- Interests: Artificial Neural Networks, Representation Learning, and algorithmic optimization.

PROJECTS

Software Project Lab (SPL) - Multimodal Routing & Algorithm Suite | C & Java Developer (19 Feb 2026)

- Engineered an advanced algorithm comparison suite for complex optimization problems (Traveling Salesman Problem and 0/1 Knapsack), implementing Exact (Branch & Bound), Heuristic (Ant Colony/Greedy), and custom Hybrid solvers.
- Enhanced computational efficiency by designing a Hybrid mode that leverages heuristic results as an upper bound to significantly accelerate the exact solver.
- Integrated robust crash-proofing and automated UI-switching logic for large dataset inputs ($N > 22$), alongside KML file generation for seamless Google Maps visualization.

The Vivek Foundation Website | Web Developer (10 Jan, 2026)

- Developed and deployed the official website for The Vivek Foundation (thevivekfoundation.org) to establish and strengthen the organization's online presence.
- Managed version control and deployment pipelines to ensure a reliable, accessible, and user-friendly platform.

Event Registration Platform | Full-Stack Developer (10 Feb 2025)

- Developed a fully responsive web application using React/Vite for the frontend and Python/Uvicorn for the backend to handle registrations for an 2021 SSC batch community event.

Data Compression Utility | C Programmer (Feb 3, 2026)

- Implemented Huffman coding in C to efficiently compress and decompress data files.
- Architected the solution with modular programming, separating the tree generation, compression, and decompression logic into highly maintainable, distinct files.

SKILLS

- Programming Languages: C, Python, Java.
- Web Technologies & Frameworks: React, Tutor LMS, Stripe Integration.
- Core Engineering Concepts: Algorithms & Data Structures, Graph Theory, Deep Learning, Artificial Neural Networks, Computer Networking.
- Tools & Technologies: Git, GitHub, Java Swing, KML Generation, Modular Architecture.
- Leadership & Soft Skills: Team Leadership, Event Coordination, Complex Problem Solving, Cross-functional Collaboration, Effective Communication.