Samonwita Sarker

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Summary

- Highly motivated Computer Science and Engineering student at CUET with a strong foundation in competitive programming and software development.

EDUCATION

- **B.Sc. in Computer Science and Engineering** **(2023 – Present)**
  Chittagong University of Engineering and Technology (CUET)
  Current CGPA: 3.58

- **Higher Secondary Certificate (HSC)** **(2021)**
  Viqarunnisa Noon College
  GPA: 5.00

- **Secondary School Certificate (SSC)** **(2019)**
  Viqarunnisa Noon School
  GPA: 5.00

SKILLS

- **Programming Languages:** C, C++, Java, Python, JavaScript.

- **Web Technologies:** HTML5, CSS3, React.js, Node.js, Express.js, Next.js.

- **Databases & Tools:** MySQL, PostgreSQL, MongoDB, Git, GitHub, Docker, TanStack Router.

- **Core CS Fundamentals:** Data Structures, Algorithms, Object-Oriented Programming (OOP), Database Management Systems (DBMS), Operating Systems.

PERSONAL PROJECTS

- **TabSaver (Chrome Extension)** *TabSaver* — *GitHub*
  Developed a productivity tool using **JavaScript** and **Chrome Extension API** to manage and save browser sessions. Features include session persistence and one-click tab restoration, significantly reducing browser memory usage and improving user workflow.

- **ResumeForge** *ResumeForge* — *GitHub*
  Built a dynamic resume-building web application using **React** and **Tailwind CSS**. Integrated live-preview functionality and PDF export features, allowing users to generate professionally formatted resumes in real-time.

- **SortnPlay: Sorting Algorithm Simulator** *SortnPlay* — *GitHub*
  An interactive educational tool built with **React.js** to visualize various sorting algorithms (Bubble, Merge, Quick, etc.). Implemented real-time speed adjustment and array size customization to help students understand algorithmic complexity and step-by-step execution.

- **GlitchBreach** *GlitchBreach* — *GitHub*

  Designed and developed a themed interactive web experience using **HTML5, CSS3, and JavaScript**. Focused on creating a highly responsive and visually engaging UI with custom animations and event-driven interactivity.

- **Pixel Art Web App** *Pixel Art* — *GitHub*

  Created a grid-based drawing application utilizing **HTML5 Canvas** and **JavaScript**. Features include custom color palettes, grid resizing, and a "clear board" function, emphasizing clean DOM manipulation and state management.

- **Hangman Game** *Hangman* — *GitHub*

  A logic-based word guessing game developed with **Vanilla JavaScript**. Implemented random word generation via API/Array, keyboard event listeners, and dynamic SVG rendering for the game state transitions.

GROUP PROJECTS

- **AI-Powered Hospital Management System** *MediHub* — *GitHub*

  Role: Full Stack Developer. Collaborated on a large-scale healthcare platform. Developed secure authentication routes, integrated AI diagnostic APIs, and optimized frontend performance using **React** and **Vercel**.

- **StockMaster** *GitHub*

  Role: Full Stack Developer. Designed a robust inventory tracker. Built the **Java/SQL** backend for stock management and the frontend interface for real-time inventory updates and data visualization.

- **Adaptive Priority Round Robin** *GitHub*

  Role: Full Stack Developer. Engineered a simulation tool for OS scheduling. Developed the algorithmic core in **C++** and built a web interface to visualize process queues and performance metrics.

- **Finance Tracker** *GitHub*

  Role: Full Stack Developer. Built a financial auditing tool. Developed the **PostgreSQL** schema for transaction history and used **Chart.js** for dynamic frontend data rendering.

- **Microoops-Hackathon Project** *GitHub*

  Role: Full Stack Developer. Rapidly prototyped a full-stack solution during a 24-hour hackathon. Handled both API design and UI implementation to deliver a functional MVP under strict deadlines.

EXTRACURRICULAR ACTIVITIES (ECA)

- **Member, CUET Computer Club (CCC)** (2023 – Present)

  Engaged in intensive competitive programming sessions and technical workshops. Participated in inter-university contests, solving complex problems.

- **Joint Organizing Secretary, CUET Model United Nations (MUN) Club** (2023 – Present)

  Developed advanced **negotiation and public speaking** skills by representing various delegations in committee sessions. Drafted position papers and collaborated on resolutions regarding global technological policies.

- **Member, CUET Debating Society (CUETDS)** (2023 – Present)

  Actively participated in parliamentary debates, enhancing **analytical thinking and logical reasoning** abilities. Competed in several inter-departmental tournaments, focusing on clear communication of complex ideas.

- **Track and Field Athletics (Field Events)** (2023 – Present)

  Competitive athlete specializing in **Shot Put, Discus Throw, and Javelin Throw** at the inter-departmental level. Demonstrated physical discipline, technical precision, and mental focus.

CERTIFICATIONS

- **Data Science & Python Portfolio** *DataCamp*

  Verified portfolio demonstrating proficiency in **Python, Pandas, and Data Visualization**. Completed multiple interactive courses on data manipulation and analysis.

- **Full Stack Development Profile** *freeCodeCamp*

  Comprehensive certification profile covering **Responsive Web Design, JavaScript Algorithms, and Data Structures**. Solved 300+ coding challenges and built 5+ certification projects.

- **MatrixMUN Credential** *Credsverse*

  Verified achievement in MatrixMUN. Demonstrated excellence in **public speaking, diplomatic negotiation, and conflict resolution** within a simulation environment.

REFERENCES

- **Md. Atiqul Islam Rizvi**

  Assistant Professor

  Department of CSE, CUET

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- **Pratik Dev**

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