Sanjida Jannat Anannaya

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I'm enthusiastic and passionate about *Data Science & Software Engineering*, and dedicated to building impactful solutions that bridge the gap between progressive research and experiential applications. I aim to build a successful career as a **Software Engineer** in a reputed organization.

Education

2020 – 2024 **B.Sc. in Computer Science and Engineering**, CGPA: **3.71/4.00**.
United International University, Dhaka, Bangladesh.
Major: *Data Science & Software Engineering.*

2016 – 2018 **Higher Secondary Certificate (HSC)**, GPA: **5.00/5.00**
Barguna Govt. College, Barguna, Barisal, Bangladesh.

2014 – 2015 **Secondary School Certificate (SSC)**, GPA: **5.00/5.00**
Barguna Govt. Girls' High School, Barguna, Barisal, Bangladesh.

Experience

2025 – Present **Research Assistant** *at Institute of Advanced Research (IAR)*
Here I am currently contributing to a quantum-assisted deep learning project. Engaged in improving model generalisation and involved in research paper preparation, documentation, and experimental design.
Technologies: Python, PyTorch, PennyLane, Git, Google Colab, Overleaf.

2024 – 2025 **Undergraduate Teaching Assistant (UGA)** *at United International University, Dhaka*
Assisted faculty members, Supervised practical assessments & helped students understand core programming concepts in **C/C++, JAVA, OOP, and Data Structure Algorithms**.
Technologies: C++, Java, Git, Google Workspace, VS Code

University Projects

2024 **Brew-Breeze Shop**, View Code
A full-stack monolithic web application for a coffee dessert shop, enabling users to browse products, interact with the system, manage carts, and oversee orders via an admin dashboard. Built using Spring Boot (Java) and React.js (Vite), implementing JWT-based authentication, role-based access, and RESTful APIs.
[Tech stack: Spring Boot, Maven, Java, React, PostgreSQL, HTML, CSS, JavaScript]

University Projects (continued)

NorthStarLight, View Code
A modular, microservices-based e-commerce platform for shoes with services for authentication, cart, products, orders, users, and an API gateway. Each service is independently deployable, Dockerized, and supports centralized logging and JWT-based authentication.
[Tech stack: Node.js, Express.js, PostgreSQL, JWT, REST API, Drizzle ORM, React.js (Vite), Docker Compose]

CodeKoro — UIU Competitive Programming Online Judge
Built a university-specific competitive programming platform for UIU students, enabling practice, real-time contests, and performance tracking.
Features include diverse problem sets, live rankings, and detailed feedback to foster coding skills and employability.
[Tech stack: React.js, Node.js, Django, Git, PostgreSQL, Figma, Trello (Scrum)]

2023 **PrintKoro — Smart Self-Service Printing Platform**
Developed an innovative self-service printing system allowing users to upload and print documents via QR codes without sharing files with third parties.
The solution ensures secure file storage, real-time print status, multi-language support, and cashless payment through a mobile app.
[Tech stack: Android SDK, Django, Node.js, Figma, Jira]

Smart Prison System — Automated Inmate Management Platform
Designed a smart system to automate prison operations such as meal distribution, health tracking, work assignments, and visitor control.
Integrated Arduino, ESP32, NFC, sensors, and vending mechanisms to enhance security, efficiency, and resource allocation in correctional facilities.
[Tech stack: Arduino, ESP32, NFC, IoT Sensors]

2022 **Student Surface — UIU Student Support Platform**, View Code
A productivity platform tailored for UIU students offering access to tutorial content, mentorship, community engagement, academic tracking, job boards, and personal portfolio tools.
[Tech stack: HTML, CSS, PHP, SQL, JavaScript]

Research Publications

2023 **ElectroSortNet: A Novel CNN Approach for E-Waste Classification and IoT-Driven Separation System** View Paper Published in *2024 3rd International Conference on Advancement in Electrical and Electronic Engineering (ICAEEE). Type: Conference Paper* | *Supervised by: Prof. Dr. Mohammad Motaharul Islam*

2024 **An Innovative Online Judge for UIU's Competitive Programming** View Paper Manuscript presented as part of the *Final Year Defense Project*,UIU. *Type:Undergraduate Thesis*

Bagging-Based Ensemble Learning Framework for Multiclass Pox Skin Lesion Detection Using ML and CNN Pretrained Models Accepted in *ICCIT '2024. Type: Conference Paper* | *Supervised by: Prof. Dr. Suman Ahmmed*

Research Publications (continued)

- **AGY Launcher: Designing an Accessible Smartphone Launcher for Elderly Users and Enhancing Usability and Independence through Simplified Interfaces** Reviewed in *CSCW '2025. Type: Journal Paper | Supervised by: Lecturer Tamzid Hossain.*

- **A novel Deep Learning approach towards classification of Edible, Non-Edible and Poisonous Mushrooms** Reviewed in *ICCA '2024. Type: Conference Paper | Supervised by: Lecturer Raiyan Rahman.*

2025

- **Quantum Assisted Deep Learning Addressing the Generalization and Adaptation Challenges** Submitted to the *Institute for Advanced Research (IAR). Research Proposal | Supervised by: Dr. NIMI*

- **"Can I Enjoy My Hobbies Like Before?" A Look into Randomized To-Do App for Improving Hobby Engagement and Well-being** Reviewed in *CHI Late-Breaking Work (LBW). Type: Conference Paper | Supervised by: Dr. Jannatun Noor Mukta & Lecturer Mr. Iftekharul Abedeen*
- **"Can AI help me with healthy eating?" Designing a Personalized LLM-based Food Recommender System** Reviewd in UIST-2025. *Type: Conference Paper | Supervised by: Dr. Jannatun Noor Mukta & Lecturer Mr. Iftekharul Abedeen*

- **Leveraging CodeBERT for Automated Detection of Web Vulnerabilities, SQL Injections, and Malicious PDFs: A Transformer-Based Approach for Enhanced Cybersecurity** In Progress. *Type: Journal | Supervised by: Mir Moynuddin Ahmed Shibly.*

- **Advanced Predictive Analytics for Healthcare: Enhancing Patient Outcomes Through EHR-Based Modeling** Research in progress. *Type: Conference Draft (Work in Progress)*

Awards and Achievements

Nov 2023 — **Smart Prison – 1st Runner-up**, UIU CSE Project Show.
Category: Electronics Lab Project

July 2023 — **PrintKoro – 2nd Runner-up**, UIU CSE Project Show.
Category: System Analysis and Design Lab Project

Feb 2024 — **CodeKoro – 1st Runner-up**, UIU CSE Project Show.
Category: Software Engineering Lab Project

2020 - 2024 — **Merit-Based Scholarship – 100%, 50%, 25%**, UIU Scholarship Award.
Awarded 11th times across multiple trimesters.
Category: Recognition of consistent academic excellence at UIU

2018 — **Higher Secondary Certificate (HSC) - General Scholarship**, Barishal Board.

2016 — **Secondary School Certificate (SSC) - General Scholarship**, Barishal Board.

Skills

Languages	English (fluent), Bangla (native), Urdu (fluent), Hindi(Conversational)
Programming	C/C++, Java, Python, HTML, CSS, JavaScript, PHP, SQL
Web Development	React, Node.js, Spring Boot, REST API, MySQL, PostgreSQL
Tools	PyTorch, TensorFlow, Scikit-Learn, PennyLane, NumPy, Git, GitHub, Google Workspace, Microsoft Office (Word, **Excel**, PowerPoint, Outlook), Figma, Framer, ClickUp, Jira, Trello, Google Colab, Kaggle Notebooks, Power BI, Tableau.
Research Skills	Literature review, academic writing, Overleaf, surveys, thematic analysis & Diagram Design

References

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