Estiyak Rubaiat

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Career Summary:

As a Computer Science student specializing in Machine Learning, AI, and NLP, I am passionate about utilizing advanced technology to tackle real-world challenges. With a strong foundation in Python, C#, and R, I have hands-on experience in building data-driven solutions, from predictive modeling for crop yield to real-time sentiment analysis. I am committed to driving innovation and making a meaningful impact in the AI and Machine Learning space. Beyond academics, I actively engage in social initiatives and proudly serve as the Founder & President of IBE Blood Donation, demonstrating my leadership and commitment to community welfare.

Career Objective:

Driven and results-oriented Computer Science student specializing in Machine Learning, AI, and NLP, with a strong foundation in Python, C#, and R. Passionate about utilizing advanced technology to solve real-world challenges and deliver impactful data-driven solutions. I seek to apply my analytical skills and programming expertise in AI/ML engineering roles to foster innovation and enhance decision-making. Eager to contribute to cutting-edge research and development in AI while making a meaningful impact in technology.

Educational Background:

Secondary School Certificate || *Bindubasini Government Boys High School, Tangail*   **2017 – 2018**
- GPA: 4.78

Higher Secondary Certificate || *Shahid Mamun Mahmud Police Lines School & collage, Rajshahi*   **2019 – 2020**
- GPA: 5.00

Bachelor of Computer Science and Engineering || *American International University-Bangladesh*   **2022 – February 2026 (Ongoing)**
- CGPA: 3.69

Skills:

Programming Languages: Python (Advance), C# (Intermediate), R (Basic), Assembly Language (Basic), Java (Basic).
Tools & Platforms: PowerBI, Colab, Github, Visual Studio, IDE, AutoCAD.
ML / AI: ML, AI, NLP, DL, PyTorch, TensorFlow, Scikit-Learn.
Database: MySQL, Oracle.
Web Development: HTML5, CSS3, JavaScript (Basic), PHP(Basic).
Other Skills: Time Management, Adaptability, Photography, Leadership (still Learning).

Work Experience:

Intern || *Future Intern (Remote)*   **June 2025 – July 2025**
- **Data Modeling & Architecture:** Designed and implemented structured data models, establishing clear relationships between datasets to support business intelligence initiatives.
- **ETL (Extract, Transform, Load) Processes:** Automated and optimized data cleaning, transformation, and preparation workflows using Power Query, ensuring seamless integration and high-quality datasets for analysis.
- **Advanced Data Analysis with DAX:** Developed sophisticated DAX formulas to drive complex calculations, enabling the creation of advanced KPIs and actionable insights for key stakeholders.
- **Visualization & Dashboard Creation:** Built dynamic, interactive dashboards in Power BI, transforming raw data into visually compelling and easy-to-understand business insights for decision-makers.
- **Business Intelligence Solutions:** Leveraged data visualization and analysis to provide actionable insights, facilitating data-driven decision-making and enhancing business strategy formulation.
- **Problem-Solving & Optimization:** Delivered tailored solutions through data analysis, addressing critical business challenges and improving efficiency across departments.
- **Natural Language Processing (NLP):** Applied NLP techniques to preprocess and analyze unstructured text data, extracting valuable insights for data-driven business strategies.

Projects:

Project Title: MediLife Pharmacy Management System   **September 2022**
- Built a Java-based desktop application to manage pharmacy operations including medicine inventory, patient records, and staff profiles.
- Implemented login authentication and secure handling of user credentials.

- Designed modules for medicine management and patient information with efficient text-file based data storage.
- Developed a graphical user interface (GUI) with integrated visuals to enhance usability and accessibility.

Technologies: Java, Swing/AWT, Text File Storage

Project Title: Fruit Business Database Management System   **December 2022**
- Designed and implemented a database-driven system to manage fruit business operations, including sellers, customers, transactions, and payment/receiving methods.
- Developed and normalized Entity-Relationship (ER) models up to 3NF to ensure data integrity and minimize redundancy.
- Created and populated relational tables for Fruit Business, Customer, Seller, Payment Method, and Receive Method using SQL.
- Implemented advanced SQL queries including joins, subqueries, self-joins, outer joins, and views for efficient data retrieval and reporting.
- Applied constraints (primary keys, foreign keys, not null, default values) to maintain robust data consistency.

Technologies: SQL, Oracle/Relational Databases, ER Modeling, Normalization (1NF–3NF)

Project Title: OLD AGE HOME CARE   **April 2024**
- Developed a comprehensive care management system to enhance elderly well-being through real-time health tracking, secure communication, and activity coordination.
- Designed user-friendly interfaces for residents, staff, and families to streamline operations and improve user engagement.
- Utilized the Scrum agile framework for iterative development, incorporating regular user feedback to optimize system features.
- Tested system modules thoroughly, including medication tracking, staff scheduling, feedback collection, and billing, achieving high functionality and usability across devices.

Technologies Used: Android Development, UI/UX Design, Agile (Scrum), Firebase, System Testing, UML Diagrams.

Project Title: Dynamic Mountain View – Computer Graphics Project   **July 2024**
- Developed an interactive mountain-themed simulation using **OpenGL, GLUT**, and **C++**, featuring dynamic elements like moving trains, speedboats, and day-night transitions.
- Applied **transformations, lighting, shading, and rendering techniques** to create visually stunning and immersive 3D scenes.
- Designed **3 unique scenarios** with distinct visual and thematic elements, enhancing skills in graphics programming and 3D modeling.

Technologies: OpenGL, GLUT, C++, Computer Graphics

Project Title: FreeMarket – Freelancing Marketplace   **November 2024**
- Developed a freelancing marketplace to connect clients with skilled freelancers, allowing clients to post projects and freelancers to place bids.
- Implemented secure user authentication for both clients and freelancers and created an admin dashboard for managing users, projects, and site content.
- Built with HTML5, CSS3, JavaScript, PHP, and MySQL, providing hands-on experience in both frontend and backend development.
- Planned future enhancements including real-time messaging and integrated payment gateways.

Technologies: HTML5, CSS3, JavaScript, PHP, MySQL

Project Title: E-Commerce Dashboard with Power BI   **June 2025**
- Created a dynamic E-Commerce Dashboard at Future Interns using Power BI, visualizing key metrics like Total Revenue ($20.79M) and Customer Count (5,882).
- Revenue by Country (European Community 85.14%) and tracked Monthly Revenue Trends, highlighting growth in December.
- Developed Geographical Insights with a world map to identify top-performing regions.

Technologies: Power BI, Data Analysis

Project Title: Social Media Campaign Analysis with Power BI   **June 2025**
- Used Power BI to analyze and visualize CTR (19.31%) and ROI (8.80) for social media ad campaigns.
- I identified top-performing ads across Search Engine and Social Media, and suggested optimizations for future campaigns.
- Built an interactive dashboard to track and improve campaign performance.

Technologies: Power BI, Excel

Project Title: Student Feedback Analysis with Power BI & Python   **July 2025**
- Cleaned and processed student feedback data (CSV) and conducted sentiment analysis using Python (pandas, matplotlib, seaborn).
- Built an interactive Power BI dashboard for data presentation and stakeholder insights.
- Visualized rating distributions and sentiment trends to identify satisfaction patterns and areas for improvement.

Technologies: Python (pandas, matplotlib, seaborn), Power BI

Publication:

Title: Evaluating Machine Learning Models for Crop Yield Prediction (Accpeted)

- Implemented and compared multiple ML models including Linear Regression, Random Forest, and XGBoost.

- Evaluated models using performance metrics such as MAE, RMSE, and R² to determine prediction accuracy.

- Visualized model comparisons and feature importances to identify key yield-determining factors.

- Incorporated hyperparameter tuning and cross-validation to enhance model robustness and reduce bias.

Technologies Used: Python, Pandas, Scikit-learn, XGBoost, Data Visualization (matplotlib, seaborn), Statistical Evaluation.

Title: Real-Time Review Analysis with a Sentiment-Integrated Hybrid LDA Approach (Accepted)

• Designed a hybrid LDA model enhanced with **BERT-based sentiment analysis** for short-text review data.
• Applied **text preprocessing** (tokenization, lemmatization, NER) and feature extraction using **TF-IDF & DTM**.
• Integrated **sentiment-aware filtering** to refine topic distributions and improve thematic coherence.
• Achieved improved performance with **coherence (0.497)** and **perplexity (-5.58)** compared to standard LDA.
• Visualized insights using **word clouds, heatmaps, and intertopic maps** for sentiment-rich topic interpretation.

Technologies Used: Python, Pandas, Scikit-learn, spaCy, BERT, Gensim, Matplotlib, Seaborn.

Extra-Curricular & Volunteer Activity:

General Member || AIUB COMPUTER CLUB, Organized- AIUB CS Fest (2024), AIUB Cyber Gaming Fest (CGF 2022), Recruitment, Seminar, Workshop, Webinar etc.	**2022 – Ongoing**
Executive || BASIS Students' Forum AIUB Chapter, Volunteered- NASA Space App Challenge (2023), Organized-Seminar, Workshop, Webinar etc.	**2023 – 2025**
President || IBE BLOOD DONATION, Organized- Health camp, Blood Donation Camp, Managed Emergency BloodCall.	**2018 – Ongoing**
Volunteer || National STEAM Olympiad - Project Exhibitions, Workshops and Bootcamps, Talent *Fusion Events.*	**2024**
General Member || Shishuder Jonno Foundation, Organized- Bioscope3 (2019) Health camp, Eid Festival Camp etc.	**2017 – 2021**

Honors & Awards:

- **Runner-Up, Junior Category** | Photography Contest, **Jarvis AIUB Computer Club, Spring 2023-2024**
  Awarded second place in the Junior Category of the Photography Contest organized by Jarvis, AIUB Computer Club, among 100+ participants.

References:

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