Md. Ahsanul Haq

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Objective:

To be a part of an organization that offers a challenging and learning-oriented environment, fostering mutual growth and benefits, where I can effectively utilize my skills and contribute to both personal and organizational success.

TECHNICAL SKILLS & PROFICIENCIES:

- **Programming & Scripting:** Python, SQL, C, C++, JavaScript, MATLAB
- **Data Engineering & ETL:** Pandas, NumPy, tqdm, Selenium, BeautifulSoup, Scrapy, Apache Airflow, PySpark, data pipelines, workflow automation
- **Databases:** MySQL, SQLite, AWS RDS, PostgreSQL
- **Machine Learning:** scikit-learn (Random Forest, SVM, Regression, Clustering)
- **Data Visualization:** Matplotlib, Seaborn, Tableau, Power BI
- **Big Data & Cloud:** Apache Spark, AWS, Azure, GCP
- **Version Control & Collaboration:** Git, GitHub, Jira, Trello
- **Web & Testing:** HTML, CSS, JavaScript, API & Manual Testing, Postman, Swagger
- **Soft Skills:** Communication, Teamwork, Adaptability, Critical Thinking

Academic Qualification:

M.Sc in **Computer Science**, Jahangirnagar University (JU), (CGPA-3.27/4.00), 2025
B.Sc in **Electrical and Electronic Engineering**, Ahsanullah University of Science and Technology (AUST). (CGPA-2.54/4.00), 2019
Higher Secondary Certificate, Rajuk Uttara Model College, Dhaka. (GPA-5.00/5.00) ,2012
Secondary School Certificate, Comilla Zilla School, Comilla. (GPA-5.00/5.00), 2010

Work Experience (6 Years +):

Designation: Assistant Manager, Sr. Data Engineer (Full-time)
Dates Employed: Feb 2024 – Present
Employment Duration: 1 Year+
Company Name: Cliqpack Ltd.   **Location:** Mohakhali DOHS, Dhaka, Bangladesh
Responsibilities:
- Designing and implementing ETL pipelines for web scraping data, transforming it into the desired format, and loading it into AWS RDS and S3 buckets, leveraging data engineering principles and tools.
- Developing Python scripts to extract data from diverse websites through web scraping, applying data engineering techniques for robust data acquisition and transformation.
- Developing an ETL-based migration tool to transfer data from a source system to a target system.
-Designed and implemented a **hybrid grading and ranking model** that integrates percentile-based scoring, weighted averages, and rule-based heuristics to evaluate school performance across multiple academic criteria.

Designation: Data Engineer (Full-time)
Dates Employed: Mar 2022 – Feb 2024
Employment Duration: 1 year 11 months
Company Name: Apurba Technologies Ltd.   **Location:** Mohakhali DOHS, Dhaka, Bangladesh
Responsibilities:
- Curated and engineered high-quality datasets to support the training of machine learning models.
- Researched and developed robust data collection and preprocessing methodologies for machine learning projects.
- Demonstrated proficiency in Python, SQL, and data engineering frameworks for data manipulation and transformation.
- Implemented data engineering best practices, optimizing pipelines for scalability, efficiency, and performance.
- Utilized data visualization tools to present insights and facilitate data-driven decision-making.
- Proactively addressed data-related challenges, ensuring smooth data flow and minimal disruptions in the data pipeline.
- Documented APIs using Postman, ensuring comprehensive and developer-friendly integration.
- Collaborated with the Technical Documentation team to produce accurate and detailed technical documentation (SRS, SDD, Inception Report, Technical Report, Technical Proposals etc.).
- Performed rigorous quality assurance testing to validate data accuracy and uphold predefined standards.
- Developed JIRA task management dashboard for efficient project management and workflow tracking.
- Engaged in project meetings with the business development team to understand data requirements and contributed insights.

Designation: Data Engineer (Full-time) - Artificial Intelligence, Natural Language Processing & Blockchain
Dates Employed: Apr 2019 – Feb 2022
Employment Duration: 2 Year 11 Months
Company Name: eGeneration PLC.   **Location:** Gulshan-1, Dhaka, Bangladesh
Responsibilities:
- Developed high-quality and relevant training datasets for ML models.
- Implemented robust data acquisition techniques for diverse datasets.
- Applied advanced data filtering and cleaning techniques to enhance data quality and ensure accurate analysis.
- Created efficient preprocessing pipelines (normalization, augmentation) for enhanced training data.
- Conducted data annotation and labeling for accurate supervised learning.
- Employed data alignment and structuring techniques for compatibility and organization.
- Collaborated with domain experts for optimal model performance.
- Performed data validation and evaluation.
- Managed data systems and workflows for storage, versioning, and reproducibility.

Designation*:* Trainee Executive - Data Science & Analytics
Dates Employed: Jan 2019 – Mar 2019
Employment Duration: 3 months
Company Name: eGeneration PLC.   **Location:** Gulshan-1, Dhaka, Bangladesh
Responsibilities:
- Successfully completed comprehensive three (03) months Data Science training program under Fast Track Future Leader (FTFL) Training Program of Leveraging ICT for Growth, Employment and Governance (LICT) project of Bangladesh Computer Council (BCC), ICT Division, Bangladesh Goverment.
- Acquired practical skills and knowledge in various aspects of data science, including data preprocessing, exploratory data analysis, feature engineering, and predictive modeling.
- Gained expertise in using popular data science tools and programming languages such as Python, R, and SQL.
- Worked on real-world data science projects, applying learned techniques to solve complex business problems and provide actionable insights.

Training & Certifications:

1. Successfully completed hands-on **3 months of Certification** Fast Track Future Leader (FTFL) Training Program on **Data Science and Artificial Intelligence (AI)** organized by LICT (Leveraging ICT) which is a project of Bangladesh Computer Council under Information and Technology Division and partnered with PMIS, University of Dhaka and eGeneration Ltd. (*Time Period*: 15.01.2019-15.04.2019)
2. A Crash Course in **Data Science** by Johns Hopkins University (Coursera)
3. **Big Data Modeling and Management Systems** by University of California San Diego (Coursera)
4. **Big Data Integration and Processing** by University of California San Diego (Coursera)
5. Excel Fundamentals for Data Analysis by Macquarie University (Coursera)
6. Mastering Data Analysis in Excel by Duke University (Coursera)
7. Research Data Management and Sharing by The University of North Carolina at Chapel Hill (Coursera)
8. Introduction to Data Analysis Using Excel by Rice University (Coursera)
9. **Big Data - Capstone Project** by University of California San Diego (Coursera)
10. **Getting and Cleaning Data** by Johns Hopkins University (Coursera)
11. Introduction to Big Data by University of California San Diego (Coursera)
12. Data Science Math Skills by Duke University (Coursera)
13. Excel Skills for Business: Essentials by Macquarie University (Coursera)
14. **Big Data Specialization** by University of California San Diego (Coursera)
15. The Data Scientist's Toolbox by Johns Hopkins University (Coursera)
16. **Data Visualization and Communication** with **Tableau** by Duke University (Coursera)
17. **Data Wrangling, Analysis** and **AB Testing** with **SQL** by University of California, Davis (Coursera)
18. **Graph Analytics** for **Big Data** by University of California San Diego (Coursera)
19. Programming Foundations with **JavaScript, HTML** and **CSS** by Duke University (Coursera)
20. **SQL** for **Data Science** by University of California, Davis (Coursera)
21. Engineering Project Management: Initiating and Planning by Rice University (Coursera)
22. **Machine Learning** with **Big Data** by University of California San Diego (Coursera)
23. Business English: Management and Leadership by Arizona State University (Coursera)
24. Crash Course on **Python** by Google (Coursera)
25. Online Training on Project Management for Startups (BITM)
26. Introduction to Data Science in Python by University of Michigan (Coursera)
27. **Python Data Structure** by University of Michigan (Coursera)
28. Programming for Everybody (Getting Started with Python) by University of Michigan (Coursera)
29. Using **Python to Access Web Data** by University of Michigan (Coursera)
30. **Python Data Analysis** by Rice University (Coursera)
31. Writing Skills for Engineering Leaders by Rice University (Coursera)

MEMBERSHIP IN PROFESSIONAL SOCIETIES:

Name of Society	Rank
Institution of Engineers, Bangladesh	Member, IEB Membership No. M-46295

Project Experience:

1. Project Name: EduInsight – Australian Educational Analytics & Ranking Engine
Time Period: Jan 2025 – Present
Project URL: https://eduinsight-front.cliqpack.com/
Client Name: EduInsight Australia
Project Description:
EduInsight is a backend-driven analytics and ranking platform designed to automate school grading and comparison. It leverages large-scale educational performance data through automated extraction, transformation, and modeling workflows to deliver accurate and data-driven school insights.
Activities Performed:
-Developed robust **automated data extraction pipelines using Python & Selenium**, targeting dynamic web content and paginated datasets across multiple Australian educational portals.
-Engineered **modular ETL pipelines** in Python to perform data cleansing, deduplication, schema alignment, and transformation into structured formats suitable for downstream processing.
-Converted preprocessed datasets into **relational database format (MySQL/AWS RDS)** following normalization standards and optimized schema design.
-Designed and implemented a **hybrid grading and ranking model** that integrates percentile-based scoring, weighted averages, and rule-based heuristics to evaluate school performance across multiple academic criteria.
-Ensured **pipeline reliability and idempotency** through logging, retry mechanisms, and exception handling in Selenium and ETL workflows.

2. Project name: CliqProperty
Time period: Feb 2024 – Running
Project URL: https://cliqproperty.io/
Client Name: Myday Australia
Project description: Discover the ultimate solution for efficient and organized real estate property management with our comprehensive Property Management Software. Designed to meet the diverse needs of property managers, owners, tenants, and real estate professionals, our feature-rich application empowers you to streamline tasks and enhance productivity.
Activities Performed:
- Designing and implementing ETL pipelines for web scraping data, transforming it into the desired format, and loading it into AWS RDS and S3 buckets, leveraging data engineering principles and tools.
- Developing Python scripts to extract data from diverse websites through web scraping, applying data engineering techniques for robust data acquisition and transformation.
- Developing an ETL-based migration tool to transfer data from a source system to a target system

3. **Project name:** Ahiri
Time period: Dec 2022 – Feb 2024
Client Name: Ahiri USA and Canada
Project description: The project involves developing a platform for selling and buying various products online. The platform uses advanced algorithms to analyze customer behavior and preferences and offers personalized recommendations to customers based on their purchase history and browsing patterns.
Project URL: https://ahiri.ca/
Activities Performed:
- Developed an ecommerce dataset by cleaning, transforming, and consolidating data from diverse sources to support analytics and data-driven decision-making.
- Preprocessed datasets and developed an HTML encoder for Ahiri's SS23 and FW22 projects.
- Created a log parser for analyzing Ahiri's e-commerce log data.
- Conducted data analysis and visualization for image resolution comparison in Ahiri.
- Conducted research and development for third-party video hosting in Ahiri.
- Performed QA testing for Ahiri on various devices and browsers.
- Worked on Swagger UI for database updates in Ahiri's SS23 and FW22 products.
- Jira Dashboard utilization for efficient project tracking in agile environments.

4. **Project name:** Document Reader and Template Validation
Time period: May 2022 – Feb 2024
Client Name: a2i - Aspire to Innovate, ICT Division, Bangladesh
Project description: The project aims to develop a document reader and template validation system that can read and validate various types of documents, including passports, national identity cards, and birth certificates.
Project URL: https://documentreader.live.mygov.bd/#/g-home
Activities Performed:
- Curated and engineered high-quality datasets to support the training of machine learning models.
- Collected and annotated diverse documents (NIDs, driver's licenses, marksheets, TINs, birth certificates, passports) to enrich the Document Reader project's dataset.
- Generated API documentation for the Document Reader project using Postman to provide technical specifications and details.
- Collaborated with the Technical Documentation team to produce accurate and detailed technical documentation (SRS, SDD, Inception Report, Technical Report, Technical Proposals etc.).
- Engaged in project meetings with the business development team to understand data requirements and contributed insights.

5. **Project name:** 'Dhowni'- IPA (International Phonetic Alphabet) Transcription System
Time period: Oct 2019 – Feb 2022
Client Name: EBLICT Project, ICT Division, Bangladesh
Project URL: https://ipa.bangla.gov.bd/
Description: The aim of the project was to develop a system that could convert any kind of Bangla text into the International Phonetic Alphabet (IPA) and vice versa. The developed system was capable of accurately transcribing speech sounds and mapping them to their corresponding IPA symbols, allowing users to easily read and understand the pronunciation of Bangla words.
Activities Performed:
- Developed Bangla IPA Transcription dataset
- Prepared and transcribed around 10,000 words to meet phonetic requirements.
- Collected and crawled additional data from websites to enhance the solution's robustness.
- Implemented pentagraph and septagraph tokenization for model preprocessing.
- Conducted end-to-end testing, including unit testing, and non-functional testing.
- Applied advanced data filtering and cleaning techniques to enhance data quality and ensure accurate analysis.
- Continued maintenance by collecting and crawling data, performing testing, and collaborating with development and business analyst teams.

6. **Project name:** Optical Character Recognition (OCR) - Borno
Time period: Mar 2022 – Feb 2024
Client Name: EBLICT Project, ICT Division, Bangladesh
Project description: The 'Borno OCR' project focuses on developing an accurate Optical Character Recognition (OCR) system specifically for Bengali text. This project aims to convert Bengali text, typically found in image documents such as PDF, JPG, PNG, and GIF files, into searchable and editable text. The project delivers a complete OCR system for server-based/web-based, standalone, and mobile platforms, supported by a labeled image corpus for system development.
Project URL: https://ocr.bangla.gov.bd/#/login
Activities Performed:
- Curated and engineered high-quality datasets to support the training of machine learning models.
- Developed an efficient data extraction system for the OCR project.
- Implemented image upscaling for high-resolution images in the OCR project.
- Created a newspaper multicolumn noise dataset for the OCR project.
- Categorization and organization of diverse datasets for efficient OCR data processing
- Applied data filtering and cleaning techniques to enhance data quality.

- Engaged in project meetings with the business development team to understand data requirements and contributed insights.

6. **Project name:** EBLICT - National Screen Reader
Time period: May 2021- Feb 2024
Client Name: EBLICT Project, ICT Division, Bangladesh
Project description: The aim of the project is to develop a screen reader system for visually impaired people. The software utilizes accessibility APIs and features to extract screen information, enabling visually impaired individuals in Bangladesh to operate computers with ease. The system uses Text-to-Speech (TTS) technology to convert written text into spoken words and is capable of reading out loud any text displayed on the screen.
Activities Performed:
- Created a TTS (Text-to-Speech) dataset for this project, involving the development of a dataset specifically designed to train machine learning models for speech synthesis.
- Structured and aligned the collected corpus for efficient data processing and analysis.
- Worked on enhancing of accessibility of the Screen Reader project using Linux Ubuntu and pyatspi2 Python library.
- Developed JIRA task management dashboard for efficient project management and workflow tracking.

7. **Project name:** National Font Interoperability Engine
Time period: August 2021- Feb 2024
Client Name: EBLICT Project, ICT Division, Bangladesh
Project description: This software converts ASCII-based Bangla fonts to Unicode and vice versa. Users can convert fonts like Bijoy: SutonnyMJ, Boishakhi, and Lekhoni. Contributors can upload new Bangla fonts and their codepages for approval by the Admin. Once approved, users can use the conversion feature for the new font.
Project URL: https://fontengine.bangla.gov.bd/
Activities Performed:
- Identified and acquired diverse Bangla font data sources, including different styles, formats, and variations.
- Cleaned and transformed acquired font data to ensure project-wide consistency and compatibility.
- Developed a codepage mapping system for multi-font support, ensuring accurate character representation and encoding.
- Implemented FontForge-based font mapping for diverse Bangla fonts, enabling precise character encoding and representation in the project.

8. **Project name:** SCALA - Number Plate Detection and Recognition
Time period: Sep 2020 – Jun 2021
Client Name: SCALA, Inc. Japan
Project description: A system integrated on NVIDIA Jetson Nano to recognize characters for vehicle identification. The aim of the project was to develop an automated system for detecting and recognizing Myanmar Number Plates.
Activities Performed:
- Curated and prepared datasets for training and evaluation purposes.
- Created efficient preprocessing pipelines (normalization, augmentation) for enhanced training data.
- Conducted data annotation and labeling.
- Applied data filtering and cleaning techniques to enhance data quality.
- Optimized image quality for number plate detection and recognition through resizing, cropping, and enhancement techniques.

9. **Project name:** Beat Corona
Time period: August 2020- August 2021
Project URL: http://beatcorona.egeneration.co/

News Link: https://today.thefinancialexpress.com.bd/print/egeneration-employs-ai-to-fight-covid-19-1587825882

Brief Description: An AI-powered internet bot named "Beat Corona" and an X-ray image analysis tool specifically geared to improve and accelerate the detection of the novel coronavirus. This Chatbot was designed to answer Corona-related questions and provide users with real-time updates on the pandemic.

Activities Performed:
- Curated and engineered Question and answer datasets to support the training of machine learning models.
- Employed data alignment and structuring techniques for compatibility and organization.
- Applied data filtering and cleaning techniques to enhance data quality.
- Generated question-answer alignment for general Corona queries and created a Banglish dataset by transforming a Bangla dataset.

Thesis & Publication:

Md. Ahsanul Haq, Koushik Ahmed, Md Shahnewaz Tanvir, Rafid Al Tahmid, "**Modeling of a Thermoelectric Generator to Produce Electrical Power by Utilizing Waste Heat**." International Conference on Innovation in Engineering and Technology (ICIET) 23-24 December, 2019. 978-1-7281-6309-3/19/$31.00 ©2019 IEEE. (Accepted).
Supervisor: Dr. A.K.M. Baki, Professor & Head, Department of Electrical and Electronic Engineering, Ahsanullah University of Science and Technology (Aust), Dhaka, Bangladesh.

Language Proficiency:

Language	Reading	Writing	Speaking
Bengali	High	High	High
English	High	High	High
Arabic	High	Medium	Low

Personal Details:

Name	: Md. Ahsanul Haq	Weight	: 60 kg
Fathers Name	: Md. Hamidul Haq Bhuiyan	Sex	: Male
Mothers Name	: Sabera Begum	Blood Group	: B+
Date of Birth	: 20-01-1995	Present Address: House # 13, Road: 03, Block: B,	
Nationality	: Bangladeshi	Nobodoy Housing Society, Mohammadpur, Dhaka-	
Religion	: Islam	1207, Bangladesh.	
Marital Status	: Married	Permanent Address: Bhuiyan monjil, Khewai,	
Height	: 5'7''	Bhatshala, Brahmanbaria-3400.	

References:

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