

Skills

- **Programming Languages:** Python, JavaScript, TypeScript, Kotlin, Java, C.
- **AI & ML:** Natural Language Processing, Large Language Models, Multimodal AI, Generative AI, Agentic AI, Reinforcement Learning, Deep Learning, Computer Vision, Recommender Systems, Data Science, Data Mining, Big Data, MLOps, Descriptive & Inferential Statistics, Data Analysis, Data Visualization.
- **Databases:** MySQL, PostgreSQL, SQLAlchemy, SQLite, Db2.
- **Software Technologies:** Django, Flask, FastAPI, PyQt, Streamlit, Next.js, React.js, Tailwind CSS, HTML, CSS.
- **Cloud & DevOps:** AWS, IBM Cloud, Docker, Kubernetes, Containers, CI/CD.
- **Development Tools:** Git, GitHub, Hugging Face, Groq, CrewAI.

Professional Experience

Software Engineer | Samsung Research, Bangladesh Apr 2025 - Oct 2025  
Code Sync Automation System

- Engineered a cross-platform application system supporting macOS, Linux, and Windows, streamlining repository workflows with native support for CI/CD tasks, issue management, and automated pull request handling.
- Designed the system for extensibility and performance, integrating GitHub API, local Git hooks, and customizable CLI/GUI interfaces to save huge time during product release and boost developer productivity across diverse environments.

Watchface Design Assistant

- Designed and implemented a modular, LLM-based question-answering pipeline using RAG, optimized for on-device inference and low-latency multimodal voice interaction on Samsung Galaxy smartwatches.
- Developed a Flask-based microservice architecture to serve the QA system, achieving 83% answer accuracy through custom retrieval mechanisms, prompt engineering, and lightweight post-processing tailored for edge hardware.
- Enhanced the system to be 10x faster and automated for daily user interactions, making watches significantly smarter and more responsive than the current generation.

Explore ML Facilitator | Google, India Oct 2020 - Jun 2024

- Selected in the top 1% of candidates globally, underwent rigorous AI and ML training led by Google ML engineers, and enhanced proficiency in the field.
- Engineered and deployed high-impact ML models by integrating academic research with Google initiatives, while building and scaling a 5,700+ member ML community focused on technical collaboration and knowledge transfer.
- Effectively communicated complex ML concepts to diverse audiences while leading 12+ cutting-edge AI, NLP, and ML projects, deploying Django, REST API, Flask, and FastAPI to deliver high-quality, on-time, and budget-conscious solutions.

Artificial Intelligence Engineer | Bartr, India Sep 2023 - Dec 2023

- Best AI Engineer Award recipient for elevating the accuracy of large and custom image datasets from 56% to 100% by implementing a hybrid architecture with CNNs and LSTM in developing Facial Expression Recognition for Django-based AI systems.
- Directed the research and implementation of advanced AI and ML algorithms, enhancing project performance and mentoring teams to apply AI solutions effectively in real-world contexts.

Research Engineer | City University, Bangladesh Jun 2023 - Sep 2023

- Achieved 1st position at the university's annual research exhibition with 92-94% accuracy in cyberbullying text detection using multiclass ML and GPT-3.5 classification techniques, deployed in Flask web application.
- Proficiently gathered and analyzed diverse social media data to discern cyberbullying trends while categorizing content by demographics for comprehensive analysis, employing robust NLP techniques.
- Demonstrated exceptional ML skills, achieving 94%, 93%, 92%, 92%, 93%, 94%, and 94% accuracy with the RF, SVM, LR, DT, Bi-LSTM, BERT, and GPT-3.5 models, and while innovating keyword-based strategies for enhanced cyberbullying detection.

Artificial Intelligence Engineer | Omdena, New York Feb 2023 - Sep 2023

- Developed the HR interview preparation chatbot with Streamlit, powered by RAG, LLM, and OpenAI APIs, redefining candidate readiness through comprehensive skill evaluation in behavior, communication, empathy, leadership, and problem-solving.
- Developed an advanced NLP-powered text summarization Flask application leveraging fine-tuned RAG, LLM, and OpenAI APIs, delivering automated and precise summaries, and validated through benchmarking for 75% performance and 56% user satisfaction.
- Developed an innovative AI-based road inspection system leveraging the Yolov8 pre-trained model, enabling timely detection of road anomalies with a remarkable 97% accuracy, and deployed a user-friendly Streamlit application for seamless user integration.
- Developed an AI-driven Computer Vision healthcare system with Django and REST API, achieving 100% accuracy, 97% precision, 98% recall, and 99% F1-score on large-scale CT scan data for early detection of COVID-19, Pneumonia, Tuberculosis, and Lung Cancer.
- Developed Bangladesh's real estate experience with a cutting-edge hybrid NLP recommendation system, achieving 93% accuracy and exceptional user engagement and satisfaction, with fine-tuning through A/B testing, and showcased seamlessly deployed using Flask.
- Built an AI-driven Fake News Detection system with Django, REST API, DL, and NLP, and leveraging web scraping for diverse data collection, developed and optimized models to achieve 99% accuracy, 100% precision, 99% recall, and 99% F1-score.

## Honors and Awards

- Recipient of the prestigious Best Undergraduate Thesis Award in Computer Science and Engineering for 2023 from the City University of Bangladesh.
- Institute Merit Scholarship holder at City University of Bangladesh in all the semesters (Top 2% in the Department of Computer Science and Engineering).
- Champion at Inter-University Programming Contest 2021 (1st position out of 5,000+ contestants).
- Runner-up at Intra-University Programming Contest 2022 (2nd position out of 1,200+ contestants).
- Winner Award at Inter-University Cyber Security Contest 2021 (10th position out of 2,000+ contestants).
- Runner-up at Banglalink as a Campus Leader in Bangladesh (2nd position out of 100+ Campus Leaders across Bangladesh).
- Best participant in ICPR Competition on Multilingual Claim-Span Identification with 27th International Conference of Pattern Recognition 2024 (1st and 3rd position in English and Hindi tokens predictions among 500+ contestants).
- Secured 21st position at the Store Sales - Time Series Forecasting competition in Kaggle (21st position out of 1,000+ contestants).
- Secured 25th position at the Digit Recognizer competition in Kaggle (25th position out of 2,000+ contestants).
- Secured 318th position at Weekly Contest 371 in Leetcode 2023 (318th position out of 14,518+ contestants).

## Education

### City University, Bangladesh

Nov 2019 - Nov 2023

Bachelor of Science in Computer Science & Engineering

- **CGPA:** 3.57/4.0 | Best Undergraduate Thesis Award, 2023
- **Merit Position:** Top 4% CGPA in the class and Top 1% distinguished portfolio in the school.

## Publications

- **Md. Anas Mondol\***, M. Ashaf U., M. Safaet H.\*, Mst. Ayesha S., "AI-Powered Frameworks for the Detection and Prevention of Cyberbullying Across Social Media Ecosystems", **Journal of Computer Science and Technology**.

### Patent

- I. A. Fahad\*, **Md. Anas Mondol\***, M. A. Islam, "Tuberculosis Detection using Deep Learning Neural Network from Radiographic Images", **Journal of Social Computing**.

### Reviewer

- International peer-reviewed Journal of **Human-Centric Intelligent Systems** powered by **Springer Nature**.

## Projects

### Pulse AI

Dec 2024 - Feb 2025

- Developed PulseAI, an AI-powered SaaS Social Media Content Generator using Next.js and Google's Generative AI.
- Developed and integrated AI-driven text generation models and implemented prompt engineering techniques tailored for Twitter, Instagram, and LinkedIn, optimizing engagement and reach.
- Designed and implemented a full-stack application with TypeScript, Tailwind CSS, and Next.js for performance and scalability.
- Developed a points-based content generation system to enhance user engagement and monetization strategies.
- Applied AI ethics principles to ensure fair, unbiased, and high-quality personalized content recommendations.
- Integrated Clerk for authentication, ensuring a secure and scalable user management system.
- Architected a scalable database using Drizzle ORM with Neon Database, optimizing data storage and retrieval.
- Developed real-time content preview functionality and a history tracking system for improved user experience.
- Implemented Stripe-based subscription payments, enabling seamless monetization.
- Deployed the application on Netlify, optimizing for performance, reliability, and scalability.

## Professional Certificates

- IBM Full Stack Software Developer Professional Certificate.
- IBM Data Science Professional Certificate.
- IBM AI Engineering Professional Certificate.
- IBM Applied AI Professional Certificate.
- IBM Data Analyst Professional Certificate.
- Practical Data Science on the AWS Cloud Specialization by DeepLearning.AI and AWS.
- Advanced Data Science with IBM Specialization.
- Generative AI with Large Language Models by DeepLearning.AI and AWS.
- Reinforcement Learning From Human Feedback by DeepLearning.AI.
- Building AI Voice Agents for Production by DeepLearning.AI.
- Explore Machine Learning with Crowdsource Beginner Track by Google AI and Google Crowdsourcing.

## Talks and Workshops

### T3 Invited Talk at Competitive Programming Camp of City University, Bangladesh

Mar 2024

- Delivered a seminar entitled "Roadmap to Become an AI Engineer" (1 hour).

### T2 Invited Talk at Ministry of Foreign Affairs (MoFA) Head Office, Bangladesh

Jun 2023

- Discourse in an innovation discussion entitled "How to build Smart Bangladesh by utilizing AI within the mission 2041" (2 hours).

### T1 Developing ML Models for Application Workshop Hosted by Banglalink, Bangladesh

May 2023

- Delivered a workshop entitled "Enhanced robustness of Supervised and Unsupervised ML models" (1 hour).

## Extracurricular Activities

- Advisor, Competitive Programming Camp | City University, Bangladesh**

Jan 2024 - Present

  - I was exclusively invited to serve as an Advisor, orchestrating 5+ programming contests attended by a cumulative 8000+ students from diverse backgrounds, both within and outside the university. Additionally, I have provided comprehensive training to 500+ students in fundamental Python and ML concepts, diligently preparing them for upcoming national and international Datathons.
- Google Developer | Google, Bangladesh**

May 2023 - Present

  - Esteemed invitation to join as a Google Developer in Bangladesh, dedicated to mentoring and leveraging expertise in Google Cloud, Software Development, and AI technologies, enriched through ongoing learning and participation in industry-leading events like Google I/O.
- Founder & Campus Leader | Banglalink, Bangladesh**

Sep 2022 - Sep 2023

  - I have been selected as a Campus Leader from the top 1% of candidates in Bangladesh, organizing and leading 12+ AppLink idea and innovation workshops with 1200+ student participants, fostering Banglalink technology awareness. Additionally, I have cultivated a thriving AppLink Developer Community (ADC) on campus, comprising 100+ members, and facilitated the development and submission of 50+ revenue-generating high-quality apps, showcasing the talent and innovation of student developers.
- Founder & Senior Campus Influencer | Google Crowdsourcing, India**

Oct 2021 - Jun 2023

  - Founded and led the Google Crowdsourcing Learning Community (CLC) at City University of Bangladesh, spearheading a series of 10+ highly successful ML workshops with an exceptional attendance of 3500+ enthusiastic students.
  - Established valuable partnerships with Google experts and influential guest speakers, enriching the workshops with real-world applications and cutting-edge advancements in ML and AI.
- Executive Member, Cyber Security Forum | City University, Bangladesh**

Jan 2020 - Jul 2022

  - I have been chosen from the top 1% of applicants in the university, orchestrated 7+ high-impact seminars, and workshops on Ethical Hacking, Cyber Security, Digital Forensics, Penetration Testing, etc., spotlighted renowned speakers from Bangladesh and abroad, drawing 2200+ participants, illuminating pervasive interest in contemporary cyber security realms.

## References

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