**Nazim-E-Alam**

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Codeforces: [nazim.riyadh](https://codeforces.com/profile/nazim.riyadh) | Leetcode: [nazim\_riyadh](https://leetcode.com/u/neariyadh786/) | Behance: [Nazim Riyadh](https://www.behance.net/neariyadh)

**EDUCATION**

**American International University-Bangladesh GPA: 3.96/4.00, *Dean’s List***

*B.Sc. in Computer Science Engineering 2022-2025*

* **Related Coursework:** Data Structures & Algorithms, Object-Oriented Programming, Web Technologies, Database, Objects Oriented Analysis & Design, Machine Learning, Artificial Intelligence, Computer Vision & Pattern Recognition, Natural Language processing, Operating System, Software Requirement Engineering, Computer Networks

**Jagannath University Dhaka, Bangladesh**

*B.Sc. in Mathematics 2020-2021*

**Professional Experience**

**KT Informatik Dhaka, Bangladesh**

*Software Engineer Intern Nov 2025- present*

* Designed and implemented an AI-powered ATS using RAG (BM25, vector search, knowledge graph) for intelligent candidate ranking, information retrieval from candidate pool
* Reduced end-to-end API latency by about 50% using Redis/Celery–based asynchronous processing and a dual-LLM strategy, bringing responses under 2 seconds.​
* Built production-grade Docker and Docker Compose setup for FastAPI, PostgreSQL (pgvector), Neo4j, Redis, and Celery, achieving roughly 60% image size reduction.​

**SKILLS**

**Frontend Development:** React.js, JavaScript (ES6+), HTML5, CSS3, Tailwind CSS, Responsive Design

**Backend & Databases:** PHP, Node, Go, MySQL, PostgreSQL, NEO4j, FastAPI, RESTful APIs

**Programming & AI/ML:** C++, JavaScript, GO, Java, Python (scikit-learn, TensorFlow, PyTorch, pandas, NumPy)

**Problem Solving:** Solved 300+ algorithmic and coding challenges across multiple platform

**Graphic Design & UI/UX:** Adobe Photoshop, Adobe Illustrator, Adobe XD, Figma, Canva

**Tools & Platforms:** Git, GitHub, Docker, Redis, VS Code, npm, Jira, OpenCV, Jupitar Notebook

**Additional Competencies:** UI/UX Implementation, Machine Learning Model Development, Debugging & Troubleshooting, Problem Solving, Team Collaboration

**PROJECTS**

**Full-Stack Blog Application (Full Stack)** [**Github**](https://github.com/NazimRiyadh/blogbyte)

*Tech Stack: React JS, Appwrite (BaaS), Redux Toolkit, React Router, tailwind*

* Built a **full-stack blog app** with authentication, CRUD operations, and image upload.
* Integrated Appwrite for backend services (auth, DB, storage) and Redux for state management.
* Enhanced responsiveness and UX using component-based design.
* Implemented state management via Redux Toolkit and protected routes for authenticated users.

**Turfy – Turf Booking System (Full Stack)** [**Github**](https://github.com/NazimRiyadh/Turfy)

*Tech Stack: PHP, MySQL, HTML, CSS, JavaScript*

* Developed a full-stack web application for turf owners to register turfs, manage multiple sports facilities (Cricket, Football, Badminton), and upload images.
* Implemented secure session-based authentication for turf owners to manage daily time slots with dynamic pricing and booking status updates.
* Built a user-friendly dashboard for real-time slot availability, flexible pricing, and default slot price settings.
* Integrated image upload handling and optimized the platform for a smooth turf booking and management experience.

**Online Quiz (Java Console Based)** [**Github**](https://github.com/NazimRiyadh/OnlineQuiz)

*Tech Stack: Java, File I/O, Object-Oriented Programming* .

* Developed a full-stack web application for turf owners to register turfs, manage multiple sports facilities (Cricket,
* Developed a console-based quiz application using Java with classes for Question, Answer, Student, Quiz, and Result, implementing OOP principles for scalable quiz and result management.

**Papers & Publications**

**ESkinNetBD: A Dual-Attention Enhanced EfficientNet Framework** **for Transparent Skin Disease Classification in Bangladesh:**

* Developed a CNN-based system (EfficientNetB2 + CBAM) for six-class dermatological image classification using the SkinDisNet which is a Bangladeshi dataset (11,970 images).​
* Addressed severe class imbalance via class-balanced focal loss, augmentation, and label smoothing, achieving macro-F1 of 96.9% on the test set.​
* Implemented Grad-CAM and Grad-CAM++ to provide clinically interpretable visual explanations for model decisions

**Developing a Chlorophyll Level Detection Model Using CalCOFI Bottle Data:** [**available**](https://drive.google.com/file/d/1zfVc2bF8RVo46YXF6wgQaxjT0C5FGBlG/view?usp=drive_link)

**Implications for Marine Ecosystem Monitoring**

* Model for chlorophyll level detection using CalCOFI data, achieving an R² score of 0.7889 with an optimized Random Forest Regressor.
* Implemented comprehensive data preprocessing, advanced feature engineering, and Optuna-based hyperparameter tuning to surpass 10+ alternative models in predictive accuracy.

**Attention U-Net with Bayesian Optimization:** [**available**](https://drive.google.com/file/d/1zmiAtnqgJDVO1LsgvhBkQl3PPHaA0axX/view?usp=drive_link)

**A Practical and High-Performance Model Medical Image Segmentation**

* Developed a high-performance Attention U-Net model, integrating Squeeze-and-Excitation blocks and optimized via Bayesian Hyperparameter Tuning (Optuna), to achieve state-of-the-art medical image segmentation results (Dice: 0.9770, AUC: 0.9968) on lung and liver CT datasets.
* Outperformed baseline U-Net and GA-UNet models, establishing a robust and computationally efficient deep learning solution that demonstrated superior segmentation accuracy.

**Evaluating Clinical vs. General-Purpose BERT on Clinical Text Classification** [**available**](https://drive.google.com/file/d/1tCfgsHON-CXjgyjzM18URyY8X3lfWFgr/view?usp=drive_link)

* Empirically compared ClinicalBERT and general-purpose BERT for clinical text classification, achieving perfect performance on stylistic tasks and demonstrating ClinicalBERT's statistically significant superiority (92.17% accuracy, 0.9246 F1-Score) on complex mortality prediction.
* Designed and executed classification experiments on the MIMIC-III dataset, applying advanced NLP techniques and utilizing Python, PyTorch, Hugging Face Transformers, and relevant data science libraries for model development and rigorous performance analysis.

**ACTIVITIES AND ACHIEVEMENTS**

**Dean’s List Honors American International University-Bangladesh**

*Spring 22-23, Fall 22-23, Spring 23-24, Fall 23-24, Fall 24-25 Jan 2022 – Dec 2025*

**Unmesh Dhaka, Bangladesh**

*Executive member MAR 2017 – Current*

* Led social initiatives to support underprivileged communities by organizing aid during festivals

and winters, coordinating fundraising, contributing personal funds, and assisting families in need.