

# Md. Mosfikur Rahman

 GitHub |  LinkedIn |  Portfolio |  [mdmosfikurrahman.cse@gmail.com](mailto:mdmosfikurrahman.cse@gmail.com) |  +8801797554948

## Career Objective

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A dedicated and growth-oriented Software Engineer with proven experience in backend development, system architecture, and enterprise software integration. I specialize in building scalable microservices, designing secure and testable APIs, and optimizing performance across databases and distributed systems. Throughout my journey, I have contributed to national-scale platforms, supported architecture planning for aviation systems, and developed dynamic CMS features for global clients. My collaborative approach, combined with a strong foundation in software engineering principles and academic research, enables me to deliver practical and impactful solutions. I am passionate about continuous learning, mentoring others, and contributing to software that bridges innovation with real-world needs.

## Education

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2021	Bachelor of Science (B.Sc.) in Computer Science and Engineering <b>Daffodil International University, Bangladesh</b>	(CGPA: 3.83/4.00)
2021	Erasmus Mundus Exchange Program <b>Adam Mickiewicz University, Poland</b>	(Completed 6 ECTS)
2016	Higher Secondary School Certificate <b>Major General Mahmudul Hasan Adarsha College, Tangail</b>	(GPA: 4.67/5.00)
2014	Secondary School Certificate <b>Police Lines Adarsha High School, Tangail</b>	(GPA: 5.00/5.00)

## Research Interest

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- Data Science
- Machine Learning
- Artificial Intelligence
- Internet of Things
- Software Development

## Journals

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**Rahman, Md. Mosfikur**, Mohd. Saifuzzaman, Akash Ahmed, Mahfuja Ferdousi Mahin Mahin, and Syeda Farjana Shetu (2021). "Impact of COVID-19 on mental health: A quantitative analysis of anxiety and depression based on regular life and internet use". In: *Current Research in Behavioral Sciences* 2, p. 100037. ISSN: 2666-5182. DOI: [10.1016/j.crbeha.2021.100037](https://doi.org/10.1016/j.crbeha.2021.100037).

Saifuzzaman, Mohd, **Rahman, Md. Mosfikur**, Syeda Farjana Shetu, and Nazmun Nessa Moon (2021). "COVID-19 and Bangladesh: Situation report, comparative analysis, and case study". In: *Current Research in Behavioral Sciences* 2, p. 100034. ISSN: 2666-5182. DOI: [10.1016/j.crbeha.2021.100034](https://doi.org/10.1016/j.crbeha.2021.100034).

Shetu, Syeda Farjana, **Rahman, Md. Mosfikur**, Akash Ahmed, Mahfuja Ferdousi Mahin Mahin, Md. Abtab Uddin Akib, and Mohd. Saifuzzaman (2021). "Impactful e-learning framework: A new hybrid form of education". In: *Current Research in Behavioral Sciences* 2, p. 100038. ISSN: 2666-5182. DOI: [10.1016/j.crbeha.2021.100038](https://doi.org/10.1016/j.crbeha.2021.100038).

## Conferences

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- Rahman, Md. Mosfikur**, Mohammad Abul Kashem, Mohammad Mohiuddin, Mohammad Alam Hossain, and Nazmun Nessa Moon (Dec. 2020). “Future City of Bangladesh: IoT Based Autonomous Smart Sewerage and Hazard Condition Sharing System”. In: *2020 IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering (WIECON-ECE)*, pp. 126–130. DOI: [10.1109/WIECON-ECE52138.2020.9397950](https://doi.org/10.1109/WIECON-ECE52138.2020.9397950).
- Moon, Nazmun Nessa, Ms. Shayla Sharmin, Refath Ara Hossain, Israt Jahan, Fernaz Narin Nur, and **Rahman, Md. Mosfikur** (2021). “Deep Learning Model for Detecting and Diagnosing Plant Disease”. In: *2021 International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON)*, pp. 1–8. DOI: [10.1109/SMARTGENCON51891.2021.9645857](https://doi.org/10.1109/SMARTGENCON51891.2021.9645857).
- Rahman, Md. Mosfikur**, Musfikur Rahman Foysal, Nazmun Nessa Moon, and Fernaz Narin Nur (2021). “TraFoo: An Android Application for Food Delivery in Train”. In: *2021 International Conference on Smart Generation Computing, Communication and Networking (SMART GENCON)*, pp. 1–7. DOI: [10.1109/SMARTGENCON51891.2021.9645900](https://doi.org/10.1109/SMARTGENCON51891.2021.9645900).
- Yesmin, Farzana, **Rahman, Md. Mosfikur**, Mohd. Saifuzzaman, and Nazmun Nessa Moon (2022). “Pandemic Effect on Education System Among University Students”. In: *Progresses in Artificial Intelligence & Robotics: Algorithms & Applications*. Ed. by Luigi Troiano, Alfredo Vaccaro, Nishtha Kesswani, Irene Díaz Rodriguez, and Imene Brigui. Cham: Springer International Publishing, pp. 157–168. ISBN: 978-3-030-98531-8. DOI: [10.1007/978-3-030-98531-8\\_16](https://doi.org/10.1007/978-3-030-98531-8_16).
- Islam, Tariqul, **Rahman, Md. Mosfikur**, Md. Ismail Jabiullah, and Mohd. Saifuzzaman (2023). “Cyber Security Intruder Detection Using Deep Learning Approach”. In: *Information Systems and Management Science*. Ed. by Lalit Garg, Dilip Singh Sisodia, Nishtha Kesswani, Joseph G. Vella, Imene Brigui, Peter Xuereb, Sanjay Misra, and Deepak Singh. Cham: Springer International Publishing, pp. 518–530. ISBN: 978-3-031-13150-9. DOI: [10.1007/978-3-031-13150-9\\_42](https://doi.org/10.1007/978-3-031-13150-9_42).
- Johora, Fatema Tuj, Alamin-Ul-Islam, Farzana Yesmin, and **Rahman, Md. Mosfikur** (2023). “A New Chaotic-Based Analysis of Data Encryption and Decryption”. In: *Advances in Data Science and Artificial Intelligence*. Ed. by Rajiv Misra, Nishtha Kesswani, Muttukrishnan Rajarajan, Bharadwaj Veeravalli, Imene Brigui, Ashok Patel, and T. N. Singh. Cham: Springer International Publishing, pp. 455–468. ISBN: 978-3-031-16178-0. DOI: [10.1007/978-3-031-16178-0\\_32](https://doi.org/10.1007/978-3-031-16178-0_32).
- Johora, Fatema Tuj, Israt Binte Mahfuja, A. N. M. Masuqur Rahman, **Rahman, Md. Mosfikur**, and Md Sadekur Rahman (2024). “Machine Learning-Based Prediction of COVID-19: A Robust Approach for Early Diagnosis and Treatment”. In: *Proceedings of the Fifth International Conference on Trends in Computational and Cognitive Engineering*. Ed. by M. Shamim Kaiser, Raghvendra Singh, Anirban Bandyopadhyay, Mufti Mahmud, and Kanad Ray. Singapore: Springer Nature Singapore, pp. 205–215. ISBN: 978-981-97-1923-5. DOI: [10.1007/978-981-97-1923-5\\_16](https://doi.org/10.1007/978-981-97-1923-5_16).

## Research Collaborations

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- **Reviewer**, Current Research in Behavioral Science.
- **Reviewer**, ISA Transactions.
- **Reviewer**, Natural Language Processing Journal.
- **Reviewer**, Journal of King Saud University - Computer and Information Sciences.
- **Reviewer**, 2022 4th International Conference on Deep Learning, Artificial Intelligence and Robotics.
- **Reviewer**, 2022 International Conference on Information Systems and Management Science.
- **Reviewer**, 2022 International Conference on Communication and Information Systems.

## Work Experience (5+ years)

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### Software Engineer L-II

*Akij iBOS Ltd.*

November 2024 – Present.

Responsibilities:

- Supporting the initial system architecture and microservice planning for the Akij Air platform.
- Collaborating with cross-functional teams to define service modules and API integration strategies.
- Contributed to the TrackForce project by delivering RESTful APIs and SQL-based reporting features.
- Introduced CI/CD workflows to improve deployment consistency and reduce manual steps.
- Enhanced internal tooling and workflows for financial reporting and data handling.

### Software Engineer

*REVE Systems Ltd.*

July 2023 – October 2024.

Responsibilities:

- Developed enterprise-grade Java applications with a focus on modularity and performance.
- Refactored monolithic systems into microservice-based components to improve scalability.
- Optimized Oracle database usage, achieving significant gains in speed and storage efficiency.
- Delivered production-grade modules for national infrastructure projects including NBR.

### Software Engineer (Backend – GraphQL BFF)

*BJIT Group*

April 2022 – June 2023.

Responsibilities:

- Developed GraphQL-based Backend for Frontend (BFF) services using Java and Spring Boot.
- Implemented schema stitching, resolvers, and batching for efficient nested queries.
- Optimized Oracle DB interactions to improve query performance and API responsiveness.
- Designed reusable service patterns and contributed to internal tooling for GraphQL schema generation.

### Teaching Assistant (Dept. of CSE)

*Daffodil International University*

June 2020 – April 2022.

Responsibilities:

- Assisted in teaching core courses such as Object-Oriented Programming and Data Structures.
- Conducted lab sessions, prepared assignments, and evaluated student performance.
- Provided academic mentorship and technical guidance to undergraduate students.

## Leadership & Team Management Experience

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### Software Engineer L-II

*Akij iBOS Ltd.*

November 2024 – Present.

Responsibilities:

- Coordinating cross-functional team efforts during the early planning phase of the Akij Air system.
- Participating in shaping workflows and delivery processes aligned with agile methodology.
- Providing peer-level technical guidance on service modularization and backend design principles.
- Supporting the development of rule-based prototypes to explore business logic automation strategies.
- Assisted in improving CI/CD processes to enhance development and testing readiness.

### Vice President, Research & Career Wing

*C.P.C, Daffodil International University*

2021.

Responsibilities:

- Led student initiatives on research, career planning, and skill development.
- Organized tech talks and mentoring sessions with academia and industry.
- Guided peers on publishing, presentation, and academic writing.

# Projects

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## Akij Air Backend System

*Akij iBOS Ltd.*

Role: Backend Engineer (Planning Stage).

Responsibilities:

- Collaborating on architectural planning and system design for a new airline management backend.
- Contributing to the definition of core modules such as partner onboarding, flight inventory, and routing.
- Assisting in selecting technology stacks, drafting service boundaries, and defining integration strategy with external GDS systems.
- Spearheading documentation of architectural decisions and service interaction workflows.

## TrackForce

*Akij iBOS Ltd.*

Role: Lead Developer.

Responsibilities:

- Led backend, frontend, and QA teams to improve system performance and delivery workflow.
- Developed REST APIs and reporting modules using .NET Core and SQL Stored Procedures.
- Implemented real-time tracking and automated reporting features to support operations.

## Customs Bond Management System (NBR)

*REVE Systems Ltd.*

Role: Full-stack Developer.

Responsibilities:

- Developed modules including Legal and Case Information System and Utilization Declaration System.
- Integrated BGMEA and BKMEA databases to automate declaration processes.
- Built scalable and maintainable features using Spring Boot, Thymeleaf, and Oracle DB.
- Enhanced regulatory compliance by implementing audit trail and role-based access control.

## Rakuten Echiba Backend Development

*BJIT Ltd.*

Role: Backend Developer.

Responsibilities:

- Developed backend modules using Spring Boot tailored to Rakuten's e-commerce ecosystem.
- Assisted teammates by resolving technical blockers and providing backend support.
- Coordinated with Japanese stakeholders to align implementation with business requirements.

## Denka Corporate Website

*BJIT Ltd.*

Role: Full Stack Developer.

Responsibilities:

- Developed dynamic Marquee components and CMS features using Java and Thymeleaf.
- Implemented backend logic for content scheduling and multilingual support.
- Collaborated with UI/UX designers to ensure responsive and accessible frontend design.
- Enabled SEO optimization and analytics tracking integration to improve content visibility.

# Skills

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## Core Skills

Backend Architecture, OOP, Microservices, API Design, Process Automation, Security

## Languages

Java (8/1.8, 11, 17, 21), JavaScript, Python

## Frameworks & Tools

Spring Boot, Spring Security, JPA/JDBC, React, Thymeleaf, Docker, OAuth2

## Databases

Oracle, PostgreSQL, SQL Server, MySQL, MongoDB

## Practices

REST, GraphQL, CI/CD, Git, Stored Procedures, Agile, Scrum, Application Monitoring, Log Analysis

## Operating Systems

Linux/Unix

## Other

UML, JIRA, DataGrip, Camunda, Drools

## Certifications & Training

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- **IBM Data Science Professional Certificate (Coursera)**, Professional Certificate in Data Science.
- **Data Science for Everyone (DataCamp)**, Basic to Advanced Data Science Tutorial Certification.
- **Machine Learning for Everyone (DataCamp)**, Machine Learning Certification From Basic to Advanced.

## Extracurricular Activities

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- **Conference Speaker**, 10th IEEE International Women in Engineering (WIE) Conference on Electrical and Computer Engineering 2024 (IEEE WIECON-ECE 2024).
- **Guest Speaker**, entitled “How to get started: Undergraduate Research Journey”, organized by Computer & Programming Club, Daffodil International University.
- **Vice President**, Research & Career Wing (2021), Computer & Programming Club, Daffodil International University.
- **Technical Lead**, “Take Off - 2020”, organized by Computer & Programming Club, Daffodil International University.
- **Organizing Member**, Programming Contest, “Take Off - 2019”, organized by Computer & Programming Club, Daffodil International University.

## References

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<b>Nazmun Nessa Moon</b>	Associate Professor, Dept. of CSE, Daffodil International University, Dhaka, Bangladesh Contact: +880 1798-145670 Email: <a href="mailto:moon@daffodilvarsity.edu.bd">moon@daffodilvarsity.edu.bd</a>
<b>Mohammad Jahangir Alam</b>	Assistant Professor, Dept. of CSE, Daffodil International University, Dhaka, Bangladesh Contact: +880 1741-378269 Email: <a href="mailto:jahangir.cse@diu.edu.bd">jahangir.cse@diu.edu.bd</a>
<b>Md. Minhajur Rahman</b>	Senior General Manager, ENT-4, Engineering Division, BJIT Group, Dhaka, Bangladesh Contact: +880 1816-292692 Email: <a href="mailto:minhajur.rahman@bjitgroup.com">minhajur.rahman@bjitgroup.com</a>
<b>Anisuzzaman Rubel</b>	Consultant –Enterprise Integrator, Aspire to Innovate (a2i), ICT Division, Dhaka, Bangladesh Contact: +880 1906-994487 Email: <a href="mailto:anis.zaman@a2i.gov.bd">anis.zaman@a2i.gov.bd</a>