

# MD Farhad Hossain

☎ (+880) 1521499777 🏠 H-16, Block-A, Road No-03, Vatpara, Savar, Dhaka-1340

✉ farhadiitju@gmail.com 🔗 LinkedIn 🌐 GitHub 🎓 Google Scholar ® ResearchGate 🌐 Website

## RESEARCH INTEREST

Artificial Intelligence (AI), Blockchain (BC), Computer Vision, Human-Computer Interaction (HCI), Software Engineering

## ACADEMIC QUALIFICATION

**Institute of Information Technology, Jahangirnagar University**  
*Bachelor of Science in Information Technology; CGPA: 3.53 out of 4.00*

Dhaka, Bangladesh  
Mar 2017 - May 2022

## EMPLOYMENT

**Software Engineer, Cefalo AS** — Kotlin, Java, Spring boot, Angular, React

Dhaka, Bangladesh  
Mar 2022 - Current

- Designed and implemented **REST APIs**, resulting in a **17%** increase in overall performance.
- Optimized server response time by **15%** by restructuring API and optimizing database queries using **MongoDB** and **PostgreSQL**.
- Increased user engagement by **21%** by improving usability and accessibility for non-technical users using React's **PrimeReact** library and Angular's **Material UI** and **PrimeNG**, aligning with key HCI principles.
- Integrated **Elasticsearch** to efficiently retrieve **millions** of records, using DSL queries for nested rules. Contributed to a custom **query builder** for complex Elasticsearch queries.
- Manage the **Repository** module handling physical archival units (e.g., storage units, racks, shelves), ensuring efficient tracking and space management.
- Collaborate with **European stakeholders** in an **agile development** environment to develop software solutions, review code, fix bugs and contribute to documentation efforts.

**AI Prompt Tester, Remotasks** — Angular, Python, C++, Typescript, HTML, CSS

Remote (Part time)  
July 2023 - Jan 2024

- Developed solutions for coding problems, ensuring code correctness and efficiency.
- Created comprehensive test cases to validate the functionality of the implemented solutions.
- Prepared problem summaries to provide context and clarity for the development team.
- Crafted detailed explanations of coding solutions, demonstrating the effectiveness of the chosen approach.

## PUBLICATIONS

- **Toward machine learning-based psychological assessment of autism spectrum disorders in school and community.** Sabbir Ahmed, Md Farhad Hossain, Silvia Binte Nur, M Shamim Kaiser, Mufti Mahmud. Proceedings of Trends in Electronics and Health Informatics: TEHI 2021, Pages 139-149, [🔗](#)
- **Convid-net: an enhanced convolutional neural network framework for covid-19 detection from x-ray images.** Sabbir Ahmed, Md Farhad Hossain, Manan Binth Taj Noor. Proceedings of International Conference on Trends in Computational and Cognitive Engineering: Proceedings of TCCE 2020. Pages 671-681. [🔗](#)
- **Artificial intelligence and machine learning for ensuring security in smart cities.** Sabbir Ahmed, Md Farhad Hossain, M Shamim Kaiser, Manan Binth Taj Noor, Mufti Mahmud, Chinmay Chakraborty. Data-Driven Mining, Learning and Analytics for Secured Smart Cities: Trends and Advances. Pages 23-47 [🔗](#)
- **Computational intelligence in detection and support of autism spectrum disorder.** Sabbir Ahmed, Silvia Binte Nur, Md Farhad Hossain, M Shamim Kaiser, Mufti Mahmud, Tianhua Chen. Artificial Intelligence in Healthcare: Recent Applications and Developments. Pages 179-197 [🔗](#)
- **Eligible Personal Loan Applicant Selection using Federated Machine Learning Algorithm.** Mehrin Anannya, Shahera Khatun Most, Md Biplob Hosen, Sabbir Ahmed, Farhad Hossain, M Shamim Kaiser. International Journal of Advanced Computer Science and Applications. Volume 14, Issue 8. [🔗](#)
- **A Multimodal Autism Spectrum Disorder (ASD) Dataset** Sabbir Ahmed, Md Farhad Hossain, Silvia Binte Nur, M Shamim Kaiser. Data in Brief, Elsevier. (Under Review)
- **Impact, Causation and Prediction of Socio-Academic and Economic Factors in exam centric student evaluation measures using Machine Learning and Causal Analysis** Sabbir Ahmed, Md Biplob Hossen, Md Farhad Hossain (Under Review)

## PROJECTS

- Loan Sanctioning System using **NodeJS, ExpressJS, ReactJS, tensorflow.js**: Developed a web-based loan prediction app using machine learning. Users apply for loans and employees predict approval. [↗](#)
- Machine learning-based web application for predicting students' CGPA using **NodeJS, ExpressJS, ReactJS, primere-act tensorflow.js**: The app predicts CGPA from student profile data and provides progress insights for teachers. [↗](#)
- farhadcodes-a-CP-blog using **Java, Spring Boot, React.js**: Developed a web blog with user authentication, enabling posting, editing, and deleting stories. [↗](#)

## PROGRAMMING COMPETITIONS EXPERIENCE

### TEAM COMPETITIONS

- Top **2.2%**,  $39^{th}$  out of 1747 participants, ICPC Dhaka Regional Preliminary 2021, Team: JU\_O(n<sup>3</sup>)FanClub [↗](#)
- Top **4.3%**,  $78^{th}$  out of 1805 participants, ICPC Dhaka Regional Preliminary 2019, Team: JU\_DarkSideOfTheMoon [↗](#)
- **2nd Runner-up**, Bangladesh section, IEEEExtreme 14.0 2020, Team: JuPsychosocial [↗](#)
- **2nd Runner-up**, Bangladesh section, IEEEExtreme 13.0 2019, Team: CGPAisProbabilistic [↗](#)
- Participated in more than **15** regional, national, and inter-university Programming Contests

### INDIVIDUAL COMPETITIONS

- **2nd**, Bangladesh section, Leetcode Biweekly Contest 28, Handle: thehalfblo0dprince [↗](#)
- **Google Kickstart Round B 2022**: Ranked **540<sup>th</sup>** out of **7.2k** participants. [↗](#)
- **Meta Hacker Cup 2022**: Ranked **2588<sup>th</sup>** out of **44.1k** participants(Qualified up to Round 2) [↗](#)
- **2nd**, Bangladesh section, Leetcode Weekly Contest 187, Handle: thehalfblo0dprince [↗](#)
- **Codeforces**: **Top 7.89%**, Max Rating: **1641**(handle: thehalfblo0dprince) [↗](#)
- **Codechef**: **Top 1.36%**, Max Rating: **1913** (username: frdhsn) [↗](#)
- Solved over **2600+** programming problems on different online judges [↗](#)

## TECHNICAL SKILLS

Skill	Advanced	Intermediate	Basic
Programming Language	C, C++, Java, JavaScript, Python	TypeScript, Kotlin, SQL	Go, R
Frameworks	Spring, Angular	Node.js, Express.js, React	Next.js, Flask
Libraries	TensorFlow, pandas, OpenCV	scikit-learn, PyTorch	LangChain, LlamaIndex
Databases	MySQL, PostgreSQL, MongoDB	Cassandra, Redis	Firebase
Others	Git, Jira, Bitbucket	Docker, Kubernetes	AWS, Azure

## LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

<b>Competitive Programming Community, IIT, Jahangirnagar University</b> <i>Team Lead &amp; Senior Trainer</i>	Dhaka, Bangladesh <i>Mar 2019 - Current</i>
<ul style="list-style-type: none"><li>• Coordinate contests, and teach <b>150+ participants</b> programming concepts including Graph algorithms, Data structures, Dynamic Programming, etc.</li></ul>	
<b>IEEE Student Branch, Jahangirnagar University</b> <a href="#">↗</a> <i>Vice Chair</i>	Dhaka, Bangladesh <i>Jan 2021 - Mar 2022</i>
<ul style="list-style-type: none"><li>• Coordinated and hosted multiple events including IEEEExtreme hackathons.</li></ul>	