# Nahian Rifaat

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**Codeforces ID:** t.ly/h9eA | **LeetCode ID:** t.ly/wqfQ

## PROFESSIONAL EXPERIENCE

**AI Research Assistant**                   Oct 2020-Oct 2022

*MyMedicalHUB*, Tampa, Florida, USA

- Conducted research to analyze potential risk factors of Musculoskeletal Pain for the **Fysical Score (Biomechanical Analysis)** and **Gait (Walking Pattern) Analysis** using Computer vision and deployed machine learning solutions using Django, AWS, Apache HTTP Server while maintaining codebase using Azure Repos.
- Deployed machine learning solutions using **Django, AWS** and **Apache** HTTP Server for the **EMMA** platform at https://emma.mypainlog.ai for the **Fysical Score** assessment and performed validation using **Postman**.
- Reduced output processing time by 30% and documented research findings and methodology for patenting.

## ACADEMIC CREDENTIALS

- **Rajshahi University of Engineering & Technology, Kazla, Rajshahi, Bangladesh**        Dec 2016-Oct 2022
  - B.Sc. Engg. in Computer Science & Engineering
  -**Cumulative GPA:** 3.38/4.00
- **BAF Shaheen College Dhaka**        Feb 2005-Aug 2016
  - **SSC GPA:** 5.00/5.00
  - **HSC GPA:** 5.00/5.00
  - Achieved Scholarship from the Board of Higher Secondary Education, Dhaka in HSC examination.

## PROJECTS

- **SightSeer - web application for tourist reviews**
  Dec 2018-Apr 2019
  - Developed the web application using **HTML5, CSS3, Bootstrap, Node.js, Express.js, MongoDB, Mongoose ORM** to allow to search and review tourist accommodation such as hotels, resorts and so on.
  - Incorporated a landing page and an **internal search engine using regular expression** to search for hotels, and resorts.
  - Implemented **RESTful API** for **authentication, authorization**, profile dashboards for hotels and resorts, user dashboard etc.
  - Created review, and commenting features, as well as features for creating, updating, and deleting profiles of hotels, and resorts with admin permissions.
  - Designed and Developed a Human-Computer Interfaced wireless wearable head mouse for the handicapped using Arduino microcontrollers, an IMU sensor for Mouse Cursor movement and Voice Recognition module to incorporate voice activation for click operations, data of which is transmitted by wireless transceivers to the receiver module attached to the computer for easy access.
- **Classroom Manager**        Mar 2018-Jul 2018
  - Developed a android application with authentication, attendance, classroom management, emailing and class routing features using Java, FireBase, SQLite and XML.

## PUBLICATIONS

- **Rifaat, N.**, Ghosh, U. K., & Sayeed, A. (2022). Accurate gait recognition with inertial sensors using a new FCN-BiLSTM architecture. *Computers and Electrical Engineering*, 104, 108428. **url:**t.ly/kydm
- Ghosh, U. K., Al Abir, F., **Rifaat, N**., Shovan, S. M., Sayeed, A., & Hasan, M. A. M. (2022). Most dominant metabolomic biomarkers identification for lung cancer. *Informatics in Medicine Unlocked*, 100824. **url:**t.ly/M90L

## AWARDS AND ACHIEVEMENTS

- **Champion** of the **PIM-Huawei Tech4Good Program 2021**, a global project competition to address social and environmental issues to meet SDG goals organized by **Huawei** in collaboration with **Purpose In Motion**.
- **Graduate** of the **Huawei Seeds For the Future 2021 Global Training Program** hosted online organized by **Huawei** through completing courses titled *"5G Basics: Introduction to 5G Knowledge", "AI Basics: Overview of AI", "Cloud Basics: Development and Basic Concepts",* and *"Strategic Leadership".*
- Obtained **"Deep Learning Specialization"** certification.
- **Champion** of **Huawei Seeds For The Future 2021 Bangladesh**.
- **Champion** of the **Poster Presentation Idea Contest** event of **IEEE Computer Society BDC Meet & Greet 2019: Rajshahi** organized by **IEEE Computer Society RUET Student Branch** in collaboration with **IEEE RUET Student Branch**.
- **Second Runner-Up** of the **Patriotic Music** event at **Rajshahi University of Engineering & Technology Cultural Week 2016** organized by the **Directorate of Student Welfare, Rajshahi University of Engineering & Technology**.
- Achieved **"Award of Excellence"** from the department of Computer Science & Engineering, RUET in 2022.