Ragib Shahariar Ayon

✉ ragibsayon@gmail.com   🌐 ragibayon.github.io   🎓 Google Scholar   in Linkedin

Research Interests

Machine Learning, Deep Learning, Bioinformatics, Computer Vision, HCI and Blockchain.

Professional Experience

BJIT Limited   April 2021 - present
Senior Software Engineer

Project: Jasmy NFT Marketplace
Technologies: Nestjs, Nextjs, PostgreSQL, Hyperledger Fabric, Redis and AWS.

- Developed the backend services for a scalable API gateway utilizing microservices-based MVC architecture, which achieved an 80% reduction in downtime compared to monolithic architecture.

- Integrated OAuth 2.0 and blockchain service provider, ensuring robust separation of concerns, security, and data integrity within the ecosystem.

- Successfully managed and coordinated cross-functional teams, ensuring alignment with project objectives and timelines. Reduced time-to-market for releases by 15%, accelerating revenue generation and market penetration.

Project: Openpost NFT marketplace
Technologies: Solidity, OpenZeppelin, Truffle, Hyperledger Besu, and Mythx.

- Architected the private blockchain network with the Istanbul Byzantine Fault Tolerance 2.0 (IBFT) consensus algorithm and amended the genesis block configuration for 100% faster transaction throughput than traditional private blockchain networks.

- Designed, developed, and optimized upgradeable ERC1155 smart contract utilizing Universal Upgradeable Proxy Pattern (UUPS).

Publications

- Mohammad Mihrab Chowdhury, **Ragib Shahariar Ayon**, Md Sakhawat Hossain. An investigation of machine learning algorithms and data augmentation techniques for diabetes diagnosis using class imbalanced BRFSS dataset. *Healthcare Analytics, Volume 5, June 2024, 100297*

- **Ragib Shahariar Ayon**, Jannatul Robaiat Mou, Sharafat Hossain Majed, Rathyatul Rifat. Brain Tumor Segmentation and Classification using Spatial Fuzzy C mean and Quadratic Support Vector Machine. *3rd International Conference on Electrical, Computer & Telecommunication Engineering (ICECTE), 2019. pp. 233-236.*

- Rathyatul Rifat, Jannatul Robaiat Mou, **Ragib Shahariar Ayon**, Abid Ahsan, A new approach of moving object detection using background subtraction method. *3rd International Conference on Electrical, Computer & Telecommunication Engineering (ICECTE), 2019. pp. 256-259.*

Standardized Tests

Graduate Record Examinations (GRE)   Score: 318
Verbal Reasoning 160 ‖ Quantitative Reasoning 158 ‖ Analytical Writing 3.5

International English Language Testing System (IELTS)   Overall band score: 8.0
Listening 8.5 ‖ Reading 8.5 ‖ Writing 7.0 ‖ Speaking 7.0

Education

B. Sc. in Electronics and Telecommunication Engineering   2015 - 2022
Rajshahi University of Engineering and Technology (RUET)
Thesis: *Brain tumor Segmentation and Classification Using Machine Learning
Algorithm: Fuzzy C Mean and Quadratic Support Vector Machine*

Higher Secondary Certificate   2013-2014
Notre Dame college, Dhaka

Professional Certifications

- Professional Scrum Master™ I (PSM I)   February 2022
  Scrum.org | verify

- AWS Certified Cloud Practitioner   February 2022 - January 2025
  Amazon Web Services (AWS) | verify

- DeepLearning.AI Tensorflow developer Specialization   August 2020
  Coursera | verify

- Deep Learning Specialization   August 2020
  Coursera | verify

- Statistics with Python Specialization   July 2020
  Coursera | verify

Area of Expertise

- Programming in Python, Java, Javascript, C, C++ and Bash scripting

- Training machine learning models using Keras, and TensorFlow

- Data visualization using Tableau, Power BI, Seaborn and Matplotlib.

- Image processing, segmentation and classification utilizing OpenCV.

- Writing complex SQL queries for relational and NoSQL databases

- Analyzing statistical data using MATLAB, R, and SPSS, facilitating data-driven insights and decision-making processes

- NodeJS, ExpressJs, and ReactJS for developing scalable and efficient full-stack web applications.

- Architecting fault-tolerant and highly available private Ethereum protocol-based blockchain networks using Hyperledger Besu.

- Developing smart contracts using Solidity for fungible and non-fungible tokens using ERC20, ERC721, and ERC1155.

- Proficient in writing chain code and chain code life cycle management for Hyperledger Fabric based blockchain networks.

Extra-Curricular Activities

RUET ETE Alumni Association (REAA)

- Treasurer   2022 - 2023

- Assistant Treasurer   2021 - 2022