

Bishal Basak Papan

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[Portfolio](#) | [Github](#) | [Linkedin](#) | [Google Scholar](#)

EDUCATION

Bangladesh University of Engineering and Technology(BUET)

B.Sc in Computer Science and Engineering

CGPA: 3.50 on a scale of 4.00 (Major CGPA: 3.60)

Thesis Supervisor: Professor Dr. Md. Saidur Rahman

Thesis Concentration: Algorithms, Graph Theory, Bioinformatics

Dhaka, Bangladesh

Feb. 2016 – Feb. 2021

RESEARCH INTERESTS

- Systems and Security
 - Software Engineering
 - Security
 - Computer Networks
 - Distributed Systems
- Machine Learning and Deep Learning
 - Natural Language Processing
 - Graph Neural Network
 - Computer Vision

PUBLICATIONS

New Results on Pairwise Compatibility Graphs

Published at Information Processing Letters

May 2022

Co-Authors: Sheikh Azizul Hakim, Md. Saidur Rahman

k -Safe Labelings of Connected Graphs

In proceedings of 2021 IEEE International Conference on Telecommunications and Photonics

April 2022

Co-Authors: Protik Bose Pranto, Md. Saidur Rahman

On 2-Interval Pairwise Compatibility Properties of Two Classes of Grid Graphs

Published at The Computer Journal

February 2022

Co-Authors: Protik Bose Pranto, Md. Saidur Rahman

EXPERIENCE

Incepta Solutions Inc.

Software Developer (Remote)

Ontario, Canada

June 2021 – Present

Platforms: MuleSoft, Workato, React

Languages: Java, Ruby, TypeScript, Python

SELECTED ACADEMIC PROJECTS

eMarketPlace | PHP, HTML, JavaScript, CSS, MySQL, Laravel

- A simple E-commerce website containing different modules for customer, vendor and admin
- Customers can search and order different categories of products online and provide feedback
- Vendors can add new product or update existing products' attribute.

Hall Management System for BUET | Java, Oracle, SQL, C++, CSS

[Code](#)

- A residential hall management system for BUET students and authorities
- Can be used by students and hall and university administrators in their respective modules to assign hall and room to BUET students, to clear fees of students

Class Test Management System | JavaFX, CSS

[Code](#)

- Class test routine, seat plan and invigilation management system for a department
- A student can see his/her routine and seat plan for class tests
- A teacher can see dates of class tests of his/her courses and the ones he/she needs to invigilate

Modification of MAC802.11 Protocol Using NS-2 | *NS-2, Shell, Awk, Gnuplot*

[Code](#)

- Made some modifications in original MAC protocol's congestion window size, preamble length, beacon interval, channel time etc.
- Varying the number of static & mobile nodes in a network, different metrics of the modified protocol were analyzed and compared with the original protocol using NS2.

A Comparison of Modern JVM Based Garbage Collectors: In Big Data Benchmarks | *Shell, Tex*

- A study of the performance of three JVM based garbage collectors: G1GC, ZGC and Shenandoah
- Comparing their performance on several big-data benchmarks from two Benchmark Suites: Renaissance and DaCapo, on OpenJDK Java version 11.0.15

Predicting Football Players' Injuries from Past Injuries | *Python*

- Developed crawlers to collect data from a website and collected injury history along with other relevant data of around 4000 footballers currently playing.
- Used deep learning models to predict footballers' injuries using time series forecasting techniques.

PROFICIENCY TESTS

Graduate Record Examinations (GRE)

December 2021

Score breakdown:

- Quantitative Reasoning: 166
- Verbal Reasoning: 149
- Analytical Writing: 4

Test of English as a Foreign Language (TOEFL)

December 2021

(*Internet based test*)

Score breakdown:

- Reading: 28
- Listening: 25
- Speaking: 23
- Writing: 26

TECHNICAL SKILLS

Languages: Python, Java, C/C++, TeX, MySQL, PostgreSQL, DataWeave, Matlab, HTML/CSS, PHP, JavaScript, Bash, Ruby, RAML, JSON, TypeScript

Frameworks: Mule 4, JavaFX, OpenGL, Unity, Laravel, React, Groovy

Platforms: MuleSoft Anypoint Platform, Workato, Jira, Confluence, Google Colab, Salesforce

Tools: Git, Bitbucket, Overleaf, Gephi, Mathcha, yEd, Jenkins, JMeter, Postman

Simulators: NS-2, Wireshark, Cisco Packet Tracer, Advanced REST Client

Operating Systems: Windows, Ubuntu, XV6

ACHIEVEMENTS

1. Second Runner-up in Bangladesh National Math Olympiad 2011.
2. 10th in Bangladesh National Physics Olympiad 2013.
3. 14th in Bangladesh National Science Olympiad 2015.
4. Champion in Regional Math Olympiad 2010, 2011, 2013.
5. First in Divisional Physics Olympiad 2013.

REFERENCES

Dr. Md. Saidur Rahman - *Professor*

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Bangladesh University of Engineering and Technology.
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