Mohammad Tuhin Mridha

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LinkedIn GitHub Personal-Portfolio

Academic Qualitifications

Bachelor of Science
B.Sc. in Computer Science from **Brac University**
2017 - 2022
CGPA: 2.82 out of 4.00

Higher Secondary Certificate (H.S.C)
Hazi Misir Ali College
2015 - 2016
GPA: 5.0 out of 5.0

Secondary School Certificate (S.S.C)
Delpara High School
2013 - 2014
GPA: 4.88 out of 5.0

Work Experience

Game Developer
Big Bang Studio Ltd
Sep 2022 - Present

- Developed and launched mobile games in action, puzzle, arcade, board and hybrid casual genres using Unity and C#.
- Utilized frameworks/SDKs like DOTS, Zenject, Google Cloud, Firebase for scalable and robust gameplay systems.
- Applied design patterns like Singleton, Factory, State System and Observer, following SOLID principles for clean, maintainable code.
- Implemented tools like Cinemachine, FMOD, Addressables and many others to enhance user experience and optimize asset management.
- Integrated advanced technologies and libraries to ensure high performance across mobile platforms.
- Created and Deployed the company website + Admin Panel [With HR modules]

Freelance Developer
Fiverr, UpWork, Cold Calling
Aug 2020 - Sep 2022

- Developed Web App & Games [Multiplayer, Puzzle, Action, Casual] for local and remote clients.

Robotics Activity Instructor
Robotics Club of BRAC University
2018 - 2020

- Conducted workshops on Robotics, Game Development, Video Editing, Graphic Design.

Assistant General Secretary
Robotics Club of BRAC University
2019 - 2020

- Managed club administration responsibility and developed a Club Management System Web App
- Organized National Technology events.

Research Works

Mridha, T., Rasel, A. A., & Chakrabarty, A. (2024). Synergizing IoT and Digital Twin technology for revitalizing the Ready-Made Garments industry's supply chain through simulation and modeling. Researchgate. http://dx.doi.org/10.13140/RG.2.2.27537.44644 **[Preprint]**

We developed a cyber-secure IoT system integrated with Digital Twin technology to enhance the Ready-Made Garments (RMG) supply chain. This system utilizes its ERP system to track and control the day to day production and supply chain. Additionally, the digital twin is equipped with realtime sensor and ERP data to generate a virtual model of the supply chain to simulate and monitor processes, improving efficiency, transparency, and logistics management.

Mridha, T., (2024). Enhancing Military Remote Surveillance Efficiency: Developing an Advanced Multi Rotor Drone and Integrating YOLO, SVM and U-Net for Real-Time Analysis of FPV Video Feeds. Researchgate. http://dx.doi.org/10.13140/RG.2.2.22139.94240 **[Ongoing]**

This research proposes a cost-effective solution for remote surveillance using Multi-Rotor UAVs equipped with GPS, Radar, LiDAR, thermal imaging, and visible light cameras. Unlike high-cost, high-maintenance UAVs used by advanced countries, this system allows for real-time video analysis at a lower cost. The base station processes video footage with YOLO for object detection, SVM for anomaly detection, and U-Net for semantic segmentation, enhancing efficiency and decision-making in remote surveillance missions.

Technical Skills

Programming Languages:

- C#, Python, PHP, Java, JS, SQL.

Engine/Frameworks:

- Unity, Django, Laravel, Swing (Java), Bootstrap (CSS), Robotics Operating System (ROS1).

Software:

- Unity, Blender, Adobe Products, Cisco Packet Tracer, Fusion 360, Proteus, Arduino IDE, Latex.

Hardware:

- Robotics, IoT, Embedded Systems, PCB Design, Raspberry Pi, 3D Printing.

Projects

Games

Fruit Eater [URL]
In this addictive arcade game, your goal is to navigate through exciting levels filled with delicious fruits
Carrom World 3D [URL]
Enjoy simple gameplay with smooth controls. Pot all pieces and outplay your opponent.
Last Defender [URL]
Hold your ground against waves of diverse enemies. Battle human troops, robots, and helicopters.
Monster Clash [URL]
Defend your base against relentless monster waves. Unlock powerful weapons as you progress.
Fight For World [URL]
Step into the post-apocalyptic world with Intense Combat, Upgrade System and Boss Battles.
Twister [URL]
Rearrange nodes to form precise shapes. Test your skill and mental agility in each level.
Traffic Master [URL]
Rearrange nodes to form precise shapes. Test your skill and mental agility in each level.
Nikkhipto [URL]
Its a 3D interactive game made with unity similar to the GTA Vice City game mechanics
Tank Disaster [URL]
Tank Disaster is a multiplayer 2-4 PvP and PvE type game made for windows using Photon 2 as Netcode
Puzzlium [URL]
2.5D Puzzle Platformer highly inspired from PLAYDEADS INSIDE game

Robotics

Simi: Assistant Robot [URL]
A Semi humanoid Robot With Bionic hands capability and wheels for movement.
Robo Miner [URL]
A mini scaled miner robot suitable for heavy works in the underground mining
AgriBot - Agriculture Solution [URL]
An agricultural field solution where a robot is capable of ploughing field as well as get field images
Fire Control Sentinel [URL]
A complete solution pack to prevent and defend fire hazards in the complex metropolitan city system
Lazy Shark [URL]
Lazy Shark is a battlebot robot equipped with attacking and hazardous weapon to defeat opponent
Lazy Bird [URL]
Lazy Bird is my multi rotor drone suite. One has autonomous capabilities and another with FPV functions

Achievements

- SDG Seed Grant of 100K BDT For Sustainable Water Usage Solution ..... (2023)
- Champion, Project Showcasing, Bitfest, KUET ..... (2019)
- Finalist, 2nd Runners Up, Robotics Reality Show, Channel I ..... (2019)
- 1st Runners Up, NSU Battlebot Fight, NSU ..... (2022)
- 1st Runners Up, [RoboFights] TechMania, EWU ..... (2019)
- 1st Runners Up, Robo Wrestling, RUET ..... (2019)
- 2nd Runners Up, Soccer Bot, UIST ..... (2019)
- Finalist, Frontier Technology Hackathon, IUB ..... (2020)
- 2nd Runners Up, District Science Fair ..... (2015)

Recognition

- Judge, RoboFights, Traction: Ovvudoy, Brac University ..... (2025)
- Judge, Pusti-9th International Business Genius Bangladesh 2024 on Robotics & AI, Brac University (2024)
- Judge, Soccer Bot Competition, TechSpectra 2.0, Brac University ..... (2024)
- Judge Panelist, Project Showcasing, TechSpectra: Illuminating Robotic Brilliance, Brac University (2023)
- Judge, Soccer Fights, Traction: Omniverse, Brac University ..... (2022)
- Judge, Soccer Mania, Intra University Tech Carnival, Brac University ..... (2019)

References

Md Khalilur Rhaman
Professor, Department of CSE
Brac University
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Annajiat Alim Rasel
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