

Rizwan Hasan

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EXPERIENCE

SOCIAL27 (SOCIAL27 INC.) | SOFTWARE ENGINEER (FULL-TIME REMOTE)

JUNE 2023 - PRESENT

Responsibilities:

- **Through Bug Investigation:** I meticulously investigate and reproduce user-reported issues across complex systems, including LLM, AI models, Azure services, ChatGPT, and Langchain.
- **Expert Debugging:** Leveraging my expertise in Python, FastAPI, MongoDB, Redis, and Microsoft SQL Server, I effectively debug and rectify backend issues to ensure optimal performance and reliability.
- **Advanced Problem Solving:** I apply innovative solutions to challenges in AI integration, cloud computing on Azure, and the development of scalable systems like Langchain, ensuring robust functionality and user satisfaction.
- **Continuous Improvement:** I actively contribute to enhancing software quality and efficiency through rigorous testing, code reviews, and the implementation of best practices in software development and deployment.

CLEARML (ALLEGRO ARTIFICIAL INTELLIGENCE LTD.) | SOFTWARE ENGINEER (FULL-TIME REMOTE)

FEBRUARY 2022 – JULY 2023

Responsibilities:

- **Troubleshooted and resolved** issues in the ClearML Python package using VSCode, PyCharm, Tensorflow, PyTorch, etc.
- **Built and implemented** CI infrastructure using Bitbucket Pipelines, including unit and integration tests in Python.
- **Developed** technical documentation tools using Docusaurus and Sphinx, and created data processing pipelines using Jenkins Pipelines.

EDUCATION

BSc. (Bachelor of Science) in Computer Science & Engineering

CHITTAGONG, BANGLADESH | DEC 2021

EAST DELTA UNIVERSITY

TEAMWORK AND LEADERSHIP EXPERIENCE

MICROSOFT CORPORATION | STUDENT AMBASSADOR

MAY 2020 - PRESENT

- In a unique position to solve real-world problems, establish me as a mentor and leader in my communities, and amplify my impact.
- Learn and work with Microsoft technologies and share knowledge with my communities.

EDU COMPUTER CLUB | EXECUTIVE MEMBER

JUN 2019 - MAY 2020

- Volunteered as a Member of all kinds of executive activities of the EDU Computer Club. Volunteered as a Member of all kinds of executive activities of the EDU Computer Club.

SKILLS

Languages: Python, JavaScript

Development: Flask, FastAPI, MongoDB, Express.js, Restify, Socket.io, Qt (PySide6, PyQt5), Pytest, Langchain

Technology: Git, Docker, SQL (MySQL, MariaDB), Redis, WebSocket, JavaFX, Nginx, Linux, AWS, Azure, GCP, Jenkins, Bitbucket Pipeline, ChromaDB, MongoDB, Redis

RESEARCH PUBLICATIONS

- **R. Hasan**, S. Hossain, F. I. Alam and M. Barua, "Bangla Music Genre Classification Using Fast and Scalable Integrated Ensemble Boosting Framework," 2021 3rd International Conference on Sustainable Technologies for Industry 4.0 (STI), 2021, pp. 1-6, doi: 10.1109/STI53101.2021.9732612.
- M. S. K. Inan, **R. Hasan** and T. T. Prama, "An Integrated Expert System with a Supervised Machine Learning based Probabilistic Approach to Play Tic-Tac-Toe," 2021 IEEE 12th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON), 2021, pp. 0116-0120, doi: 10.1109/UEMCON53757.2021.9666728.
- M. S. K. Inan, **R. Hasan** and F. I. Alam, "A Hybrid Probabilistic Ensemble based Extreme Gradient Boosting Approach For Breast Cancer Diagnosis," 2021 IEEE 11th Annual Computing and Communication Workshop and Conference (CCWC), 2021, pp. 1029-1035, doi: 10.1109/CCWC51732.2021.9376007.
- Inan, M. S. K., Alam, F. I., & **Hasan, R.** (2021). *Deep Integrated Pipeline of Segmentation Leading to Classification for Automated Detection of Breast Cancer from Breast Ultrasound Images*, Biomedical Signal Processing and Control, Volume 75, 2022,103553, ISSN 1746-8094, doi: <https://doi.org/10.1016/j.bspc.2022.103553>.
- M. S. Khan Inan, R. E. Ulfath, F. I. Alam, F. K. Bappee and **R. Hasan**, "Improved Sampling and Feature Selection to Support Extreme Gradient Boosting For PCOS Diagnosis," 2021 IEEE 11th Annual Computing and Communication Workshop and Conference (CCWC), 2021, pp. 1046-1050, doi: 10.1109/CCWC51732.2021.9375994.

ACHIVEMENTS & CERTIFICATIONS

Problem Solving (Basic)

ISSUER: HACKERRANK

Credentials URL: [HackerRank.com/certificates/5038462f4df9](https://www.hackerrank.com/certificates/5038462f4df9)

Python Programming Language (Intermediate)

ISSUER: HACKERRANK

Credentials URL: [HackerRank.com/certificates/d09f4e76a159](https://www.hackerrank.com/certificates/d09f4e76a159)

Certificate of Honor

ISSUER: EAST DELTA UNIVERSITY COMPUTER CLUB

Got this honorary certificate for conducting a 3 days long workshop on "Fundamentals of Python" as a trainer at my university within the period of my undergraduate course. I was a trainer in this workshop.

PROJECTS

MAGPIEOS

LINUX, OPERATING SYSTEM

Year: 2018

An Arch Linux based custom flavored Linux Distribution with GNOME3 desktop environment for pc users.

Featured in ItsFoss: <https://itsfoss.com/magpieos/>

LINUX FROM SCRATCH LIVECD IMAGE

LINUX, OPERATING SYSTEM

Year: 2016

An unofficial LiveCD Image which is created by following instructions of the official Linux From Scratch book. This LiveCD is created for inspiring Linux users to read and explore Linux From Scratch at least once in whole life. Although there was an official LiveCD, but it was discontinued before this one was created.

Featured in ItsFoss: <https://itsfoss.com/linux-from-scratch-live-cd/>

MIRRORLIST MANAGER

LINUX, PYTHON, PYQT5, QT

Year: 2018

A Qt frontend for easy mirrorlist management on Arch Linux. created using Python and PyQt5. It can be also found in Arch User Repository here <https://aur.archlinux.org/packages/mirrorlist-manager>.

Featured in ItsFoss: <https://itsfoss.com/archlinux-mirrorlist-manager/>

CYTHONIZER

PYTHON, CYTHON

Year: 2020

Cythonizer is a script that will attempt to automatically convert one or more .py and .pyx files into the corresponding compiled .pyd or .so binary modules files.

GitHub: <https://github.com/TechLearnersInc/cythonizer>

PyPi: <https://pypi.org/project/cythonizer/>

GPA CALCULATOR (WebApp)

PYTHON, FLASK, MYSQL, MEMCACHED, DOCKER

Year: 2020

It's a Grade Point Average (GPA) calculator which is a quick and easy to use web application. Anyone can edit the Grading System according to his/her educational institution's grading criteria. My team built this simple but great tool for the students all over the world coming from different grading systems. No matter which grading system they belong to, they modify the grading system of the app and use it easily.

GitHub: <https://github.com/TechLearnersInc/GPA-Calculator-Web-App>

FREE HASH CHECKER

PYTHON, PYSIDE2, QT

Year: 2018

It's a lightweight pc software for calculating any file's hash code. It supports MD5, SHA1, SHA224, SHA384, SHA256, SHA512 hashing. Through Hash Checker anyone can also check whether his/her copied clipboard hash is matched with the file's hash or not. Also, can easily be copied hash to his/her clipboard with only one click.

GitHub: <https://github.com/Rizwan-Hasan/Free-Hash-Checker>

REALTIME CHAT APP WITH ROOMS (WebApp)

NODE.JS, EXPRESS.JS, SOCKET.IO, REDIS

Year: 2021

It's an example of a Realtime Chat App in node.js using Socket.io with some advance deployment features like caching, clustering, load-balancing

GitHub: <https://github.com/Rizwan-Hasan/Realtime-Chat-App-With-Rooms>

FILE SHARING (WebApp)

NODE.JS, EXPRESS.JS, AZURE, REDIS, DOCKER, MICROSERVICE

Year: 2021

File Sharing web app is built using NodeJS and also Azure Function, Azure Blob Storage.

GitHub: <https://github.com/TechLearnersInc/File-Sharing-WebApp>

GPA CALCULATOR (Android)

ANDROID, KOTLIN

Year: 2019

It's is a Grade Point Average (GPA) calculator which is quick and easy to use in any Android Smartphone. Anyone can edit the Grading System according to his/her educational institution's grading criteria and calculate his/her GPA.

GitHub: <https://github.com/TechLearnersInc/gpa-calculator-android>

URL SHORTENER (WebApp)

PYTHON, FLASK, MYSQL, REDIS, DOCKER

Year: 2020

It's a URL shortening service web app had built using Flask. It uses the base26 algorithm (derived from base62) for shortening URL, MySQL for database, and also Redis caching. It was a group project and I was the Team Lead with 2 members.

GitHub: <https://github.com/Rizwan-Hasan/Flask-URL-Shortener-Application>

JAVA CLIENT SERVER CHAT APPLICATION

JAVA, JAVA FX, JAVA SOCKET

Year: 2019

It's a basic Client-Server Chat Application using Java Socket Programming. For Graphical User Interface it uses JavaFX.

GitHub: <https://github.com/Rizwan-Hasan/JavaChatApp>

REALTIME PvP CHESS GAME (WebApp)

NODE.JS, EXPRESS.JS, SOCKET.IO, REDIS, DOCKER, MICROSERVICE

Year: 2021

It's a real-time player vs player online Chess game where two persons can play simultaneously. It's a distributed system with load balancing.

GitHub: <https://github.com/TechLearnersInc/Chess-Game>