

Rizwan Hasan

Software Engineer Python Enthusiast
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BLOG | PORTFOLIO | GITHUB | LINKEDIN

EDUCATION

EAST DELTA UNIVERSITY
COMPUTER SCIENCE AND ENGINEERING BACHELORS

Sep 2017 - Dec 2021
Chattogram, Bangladesh

EXPERIENCE

SOCIAL27 INC. | SOFTWARE ENGINEER

Remote | June 2023 – Present

Responsibilities

- **Thorough 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 | SOFTWARE ENGINEER

Remote | Feb 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.

SKILLS

PROGRAMMING LANGUAGES	Python, Javascript
LIBRARIES/FRAWORKS	FastAPI, Scikit-learn, Langchain, PySide6, ExpressJS, Flask, Restify, Socket.io, PyTest, Redis, Bitbucket Pipeline
TOOLS / PLATFORMS	Git, PyCharm, Azure, Linux, Windows, VS Code, GitHub, Bitbucket, Azure, Jenkins, Docker, VS Code
DATABASES	SQL, MongoDB, ChromaDB, Redis, SQLite

PROJECTS / OPEN-SOURCE

REALTIME PVP CHESS GAME (WEB APP) | [LINK](#)

Programming, JSON, Socket.io, Software Development, Requirements Analysis, Data Structures, Redis, Github, Open Source Software, JavaScript

It's a real-time, player-vs-player online chase game for two players, featuring a distributed system with load balancing.

RUBAIALTER (PYTHON MODULE) | [LINK](#)

Python (Programming Language), Programming, JSON, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software

Rubaialter is a Python module utilizing Pandas for seamless conversion between .csv, .xlsx, .xls, and .sqlite3 file formats. Designed for ease, it enables command-line conversion with a single command.

CYTHONIZER (PYTHON MODULE) | [LINK](#) Python (Programming Language), Programming, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software

Cythonizer automates the conversion of .py and .pyx files into compiled .pyd or .so binary modules.

GPA CALCULATOR WEB APP | [LINK](#) Python (Programming Language), Programming, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software

a user-friendly GPA calculator web application designed for students worldwide. It allows users to customize the grading system according to their educational institution's criteria. Our team developed this tool to accommodate diverse grading systems, ensuring all students can easily calculate their GPA regardless of their academic background.

MIRRORLIST MANAGER (ARCHLINUX) | [LINK](#) Python (Programming Language), Programming, Software Development, Requirements Analysis, PySide6, Data Structures, Github, Open Source Software

Developed using Python and PyQt5, this project offers a Qt frontend tailored for efficient mirrorlist management on Arch Linux. Users can easily add, remove, and prioritize mirrors, enhancing package download speeds and system performance. Available on the Arch User Repository, it simplifies the process of optimizing mirror configurations. Highlighted in ItsFoss for its usability and benefits to Arch Linux users.

FREE HASH CHECKER (DESKTOP APPLICATION) | [LINK](#) Python (Programming Language), Programming, Software Development, Requirements Analysis, PySide6, Data Structures, Github, Open Source Software

Free Hash Checker is a lightweight Python application utilizing PySide2 for calculating hash codes of files, supporting MD5, SHA1, SHA224, SHA384, SHA256, and SHA512 algorithms. Users can verify clipboard hashes against file hashes and conveniently copy hashes with a single click.

REALTIME CHAT APP WITH ROOMS (WEB APP) | [LINK](#) Programming, JSON, Socket.io, Software Development, Requirements Analysis, Data Structures, Redis, Github, Open Source Software, JavaScript

Develop a Realtime Chat App using Nodejs and Socket.io, featuring advanced deployment capabilities such as caching, clustering, and load balancing for optimized performance.

FILE SHARING WEBAPP (NODEJS) | [LINK](#) Programming, JSON, Socket.io, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software, JavaScript

Our file sharing web application leverages Nodejs along with Azure Functions, Azure Blob Storage, and Redis for efficient file management and storage. It provides a robust platform for securely uploading, storing, and sharing files, ensuring scalability and performance through cloud-based solutions.

GPA CALCULATOR (ANDROID) | [LINK](#) Programming, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software

Develop an Android GPA Calculator app that offers quick and customizable GPA calculations based on various educational grading systems. Users can easily adjust grading criteria to match their institution's standards and efficiently compute their GPA on any Android smartphone.

URL SHORTENER (WEBAPP) | [LINK](#) Programming, JSON, Software Development, Requirements Analysis, Data Structures, Redis, Github, Open Source Software, JavaScript

It's a web application for URL shortening, developed using Flask. It employs a custom base26 algorithm derived from base62 for generating short URLs. The backend utilizes MySQL for database management and includes Redis caching for optimized performance. I served as the Team Lead, collaborating with two team members.

MAGPIEOS (LINUX DISTRIBUTION) | [LINK](#) Programming Requirements Analysis Data Structures Arch Linux Github Open Source Software

MagpieOS is a custom-flavored Linux distribution based on Arch Linux, designed for PC users. Initially featured on It's FOSS, it offers a tailored experience for enthusiasts seeking a unique Linux environment. However, it is now listed as discontinued on ArchWiki.

GPA CALCULATOR PYTHON | [LINK](#) **Python (Programming Language), Programming, Software Development, Requirements Analysis, PySide6, Data Structures, Github, Open Source Software**

Developed for Desktop Operating Systems compatible with Python, this Grade Point Average (GPA) calculator offers a user-friendly interface using PyQt5. It provides quick and easy GPA calculations, making it efficient for students and educators alike.

LINUX FROM SCRATCH LIVECD IMAGE | [LINK](#) **Programming, Requirements Analysis, Data Structures, Github, Open Source Software**

Our project is an unofficial LiveCD Image meticulously crafted following the guidelines of the official Linux From Scratch book. Designed to inspire Linux enthusiasts, it encourages users to engage with Linux From Scratch's comprehensive guide to building a Linux system from the ground up. Featured on Itsfoss, our LiveCD aims to promote hands-on exploration and learning within the Linux community.

GPA CALCULATOR (JAVA) | [LINK](#) **Programming, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software**

This project is a Grade Point Average (GPA) calculator designed for quick and easy use on any desktop operating system that supports Java. It features a graphical user interface (GUI) built with JavaFX, ensuring a user-friendly experience.

JAVA CLIENT SERVER CHAT APPLICATION | [LINK](#) **Programming, Software Development, Requirements Analysis, Data Structures, Github, Open Source Software**

This project involves developing a Client-Server Chat Application in Java, utilizing Socket Programming for communication between clients and a server. The Client side features a Graphical User Interface built with JavaFX, providing an intuitive user experience. The application allows multiple clients to connect to the server simultaneously, exchanging messages in real-time over a network connection.

CERTIFICATIONS

- Using MongoDB with Python - **MONGODB**
- Python (Intermediate) - **HACKERRANK**
- Problem Solving (Basic) - **HACKERRANK**

HONORS & AWARDS

- Microsoft Learn Student Ambassador: Recognized as a global campus leader for assisting fellow students, building strong tech communities, and developing technical and career skills for the future.
- Honorary Certificate: Conducted a 3-day workshop on "Fundamentals of Python" as a trainer at my university during my undergraduate course. Co-trained with a fellow university student.