

Rizwan Hasan

EXPERIENCED SOFTWARE ENGINEER · PYTHON/BACKEND EXPERT

Chattogram, Bangladesh

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“It’s all a question of imagination. Our responsibility begins with the power to imagine.”

Experience

Counterfoil (Ternary Solutions, Ltd.)

Bangladesh, Remote

SOFTWARE ENGINEER (BACKEND DEVELOPMENT)

January, 2025 - **Present**

- Architected and developed analytics features using Django REST framework/Python backend framework, collaborating cross-functionally to enhance data insights and reporting capabilities.
- Optimized multiple API endpoints to improve performance and response times, ensuring scalable backend infrastructure using Unicorn, Caddy, Nginx, Docker.
- Led debugging and maintenance efforts while delivering new features, maintaining high code quality through rigorous testing and documentation.

Social27, Ltd.

India, Remote

SOFTWARE ENGINEER (BACKEND DEVELOPMENT)

Jun. 2023 - **Present**

- Investigate and reproduce user-reported issues across complex systems, including LLM, AI models, Azure services, ChatGPT, and Langchain.
- With my expertise in Python, FastAPI, MongoDB, Redis, and Microsoft SQL Server, I effectively debug and rectify backend issues to ensure optimal performance and reliability.
- Apply innovative solutions to challenges in AI integration, cloud computing on Azure, and the development of scalable systems, ensuring robust functionality and user satisfaction.

ClearML (Allegro Artificial Intelligence, Ltd.)

USA, Remote

SOFTWARE ENGINEER (DEBUGGING, BUG FIXING, TEST WRITING)

Feb. 2022 - Jul. 2023

- Troubleshoot 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

DevOps	Linux, Azure, Docker, Jenkins, Bitbucket Pipeline, GitHub Actions
Back-end	FastAPI, Django, Django REST framework, Express, Flask, REST API, Websocket
Programming	Python, Javascript (Node.js)
Database	SQLite3, MongoDB, SQL Server, PostgreSQL, Redis
AI/ML	Scikit-learn, Pandas, Numpy, XGBoost, Catboost, LLM, Langchain, RAG

Education

East Delta University (EDU)

Chattogram, Bangladesh

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Sep. 2017 - Dec. 2021

- Learned core concepts of algorithms, data structures, software development, and Machine Learning.
- Got research experience and published my thesis on IEEE.

Opensource Projects

MagpieOS (A Custom Flavored Linux Distribution)

Bangladesh

FOUNDER & DEVELOPER

Jan. 2018 - May. 2020

- MagpieOS is an Arch Linux based custom flavored Linux Distribution for pc users.
- Featured in ItsFoss: itsfoss.com/magpieos
- Listed on Arch-based distributions official list: wiki.archlinux.org/title/Arch-based_distributions
- Wikipedia: bn.wikipedia.org/s/bkm7

Cythonizer (Python package)

Bangladesh

FOUNDER & DEVELOPER

Jan 2021 - Present

- A script designed to automate the conversion of Python source files (.py and .pyx) into compiled binary modules (.pyd or .so).
- GitHub: github.com/TechLearnersInc/cythonizer
- PyPI: pypi.org/project/cythonizer

Free Hash Checker (Desktop Application)

Bangladesh

FOUNDER & DEVELOPER

Jul. 2018 - Present

- A lightweight software for calculating any file's hash code, supports MD5, SHA1, SHA224, SHA384, SHA256, SHA512 hashing, developed using Python and PySide2.
- GitHub: github.com/Rizwan-Hasan/Free-Hash-Checker
- Sourceforge: sourceforge.net/projects/free-hash-checker

Mirrorlist Manager for Arch Linux

Bangladesh

FOUNDER & DEVELOPER

Oct. 2018 - Present

- A Qt-based desktop application for easy mirror list management in Arch Linux, developed using Python and PyQt5 Framework.
- Featured in ItsFoss: itsfoss.com/archlinux-mirrorlist-manager
- Arch User Repository: aur.archlinux.org/packages/mirrorlist-manager

Research & Publications

CONFERENCE PAPER

- | | | |
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| 2022 | Rizwan Hasan , Sohrab Hossain, Fahim Irfan Alam, Mannpreet Barua (2022). Bangla Music Genre Classification Using Fast and Scalable Integrated Ensemble Boosting Framework. In <i>IEEE</i> . | IEEE |
| 2022 | Muhammad Sakib Khan Inan, Rizwan Hasan , Tabia Tanzin Prama (2022). An Integrated Expert System with a Supervised Machine Learning based Probabilistic Approach to Play Tic-Tac-Toe. In <i>IEEE</i> . | IEEE |
| 2021 | Muhammad Sakib Khan Inan, Rubaiath E Ulfath, Fahim Irfan Alam, Fateha Khanam Bappee, Rizwan Hasan (2021). Improved Sampling and Feature Selection to Support Extreme Gradient Boosting For PCOS Diagnosis. In <i>IEEE</i> . | IEEE |
| 2021 | Muhammad Sakib Khan Inan, Rizwan Hasan , Fahim Irfan Alam (2021). A Hybrid Probabilistic Ensemble based Extreme Gradient Boosting Approach For Breast Cancer Diagnosis. In <i>IEEE</i> . | IEEE |

JOURNAL

- | | | |
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| 2022 | Muhammad Sakib Khan Inan, Fahim Irfan Alam, Rizwan Hasan (2022). Deep integrated pipeline of segmentation guided classification of breast cancer from ultrasound images. In <i>Elsevier</i> . | ELSEVIER |
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Workshops Conducted

DOMESTIC

- | | | |
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| 2020 | Fundamentals of Python , a 3-day-long workshop was conducted as a trainer, along with another trainer at East Delta University, Chattogram. The workshop covered all the basic core fundamental topics of Python, and its computational complexities. | Chattogram, Bangladesh |
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Invited Talks

Introduction to GitHub

Chattogram, Bangladesh

CONDUCTED THE SEMINAR AT MY UNIVERSITY WITHIN THE PERIOD OF MY UNDERGRADUATE COURSE.

Aug. 2017

- Explained the importance of Git version control for code maintenance.
- Showed basic hands-on demo of GitHub platform.

Presentations

First National Workshop on “Big Data and Machine Learning (BDML 2020)”

Chattogram, Bangladesh

PRESENTED AN IDEA ON FAKE NEWS DETECTION USING A MACHINE LEARNING-BASED APPROACH

Dec. 2020

- Workshop was held by the Dept. of Computer Science & Engineering, Chattogram University of Engineering and Technology.
- Alongside two team members, presented an idea on Fake News Detection Using a Machine Learning-based approach.

Community Contributions

DEV Community (dev.to)

Remote

COMMUNITY MODERATOR

Nov. 2024 - Present

- Maintain a positive and inclusive community by organizing content and mediating conflicts.
- Enhance the community experience by promoting high-quality posts.

Writing

Technical Writer

Dev.to

WRITER & MODERATOR

Nov. 2019 - PRESENT

- Get more than 30X speedup on your Python code [dev.to/techlearners/get-more-than-30x-speedup-on-your-python-code-23ol](#)
- What is JSON? And why do you need it? [dev.to/techlearners/what-is-json-and-why-do-you-need-it-21nd](#)
- Add custom domain in a GitHub page with Cloudflare [dev.to/techlearners/add-custom-domain-in-a-github-page-with-cloudflare-3goa](#)
- How to set up a Samba Server in Ubuntu and share files seamlessly [dev.to/techlearners/how-to-set-up-a-samba-server-in-ubuntu-and-share-files-seamlessly-5foa](#)
- How to interface Oracle Database with Python and execute queries [dev.to/techlearners/how-to-interface-oracle-database-with-python-and-execute-queries-4bin](#)
- How to setup Oracle Database 11g XE on Windows and unlock the HR user [dev.to/techlearners/how-to-setup-oracle-database-11g-xe-on-windows-and-unlock-the-hr-user-37p3](#)

Special Skills

- Freestyle Drum Composing
- AMV Making
- Critical Thinking
- Philosophy

Languages

English	Professional Working Proficiency
Bengali	Native Proficiency
Hindi	Professional Understanding with Preliminary speaking