Rizwan **Hasan**

EXPERIENCED SOFTWARE ENGINEER · PYTHON/BACKEND EXPERT

Chattogram, Bangladesh

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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 Gunicorn, 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 Contribution

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**

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**

Free Hash Checker (Desktop Application) *Bangladesh*
<small>FOUNDER & DEVELOPER</small> *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**

Research & Publications

CONFERENCE PAPER

2022	**Rizwan Hasan**, Sohrab Hossain, Fahim Irfan Alam, Mannpreet Barua (2022). Bangla Music Genre Classification Using Fast and Scalable Integrated Ensemble Boosting Framework. In *IEEE*.	*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 *IEEE*.	*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 *IEEE*.	*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 *IEEE*.	*IEEE*

JOURNAL

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 *Elsevier*.	*ELSEVIER*

Honor and Awards

DOMESTIC

2020	**Certificate of Honour for Trainer,** Conducted a 3 days long workshop on "Fundamentals of Python" as a trainer at my university under the computer club.	*Chattogram, Bangladesh*

Presentation

Introduction to GitHub *Chattogram, Bangladesh*
<small>CONDUCTED THE SEMINAR AT MY UNIVERSITY WITHIN THE PERIOD OF MY UNDERGRADUATE COURSE.</small> *Aug. 2017*

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

First National Workshop on "Big Data and Machine Learning (BDML 2020)" *Chattogram, Bangladesh*
<small>PRESENTED AN IDEA ON FAKE NEWS DETECTION USING A MACHINE LEARNING-BASED APPROACH</small> *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.

Writing

Technical Writer *Dev.to*
<small>WRITER & MODERATOR</small> *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**

Languages

English	Professional Working Proficiency
Bengali	Native Proficiency