

RUHIT SHAH

✉ ruhishah16@cse.pstu.ac.bd ☎ +8801861-114365 [github](#) [portfolio](#) [in linkedin](#)

Technical Skills

- **Languages:** C/C++, SQL, Python, MATLAB, HTML, CSS
- **Frameworks & Web Development:** Flask, Django, FastAPI
- **Data Science Tools:** Numpy, Pandas, Matplotlib
- **Data Analysis and Visualization Tools:** Power BI, Tableau, Matplotlib, Seaborn, Excel
- **Machine Learning Libraries:** TensorFlow, Scikit-learn, Keras, Pytorch, NLTK
- **Databases:** MongoDB, MySQL
- **Tools & Platforms:** Git, GitHub, Docker

Projects

1. YOLOv8 Real-Time Object Detection Web App ([Github](#))

- Employs the YOLOv8 model for real-time object detection through Flask or FastAPI.
- Supports both image uploads and live webcam streams with bounding boxes and class labels.

2. 3D Point Cloud Registration and Alignment Using Open3D ([Github](#))

- Implemented and compared multiple state-of-the-art 3D point cloud registration algorithms — including ICP, Fast Global Registration, and RANSAC-based methods — with adaptive voxel downsampling and ICP refinement, achieving robust alignment and quantitative error evaluation against reference imagery.

3. Bangla RAG System ([Github](#))

- Developed an OCR-enhanced retrieval-augmented generation system for Bengali question answering using FAISS vector search and large language models.

4. Simple Keyword-Based Chatbot ([Github](#))

- Designed a Python chatbot that responds to user queries through keyword matching and rule-based responses.

5. Harry Potter Book Search ([Github](#))

- Created a PyQt5 desktop application to search and explore the Harry Potter book series using keyword-based queries.

Work Experience

AI Engineer(Intern)

December 2024 - May 2025

Centre for Data Science Research(CDSR)

Publication

- Patch Antenna Design and Optimization Using Machine Learning Techniques ([Link](#))

Education

Patuakhali Science and Technology University

January 2019 - December 2024

B.Sc. in Computer Science and Engineering

GPA: 3.476/4.0

- Relevant Coursework: Machine Learning, Artificial Intelligence, Algorithm Engineering, Data Warehousing and Mining, Data Structures & Algorithms, Operating Systems, Database Management, Computer Networks, Software Engineering, Web Development

Honours and Awards

- Dean's Merit List – Faculty of Computer Science and Engineering, Patuakhali Science and Technology University
- 24th Position in MIST LeetCon HackMeIfYouCan 2023 – Military Institute of Science and Technology

Volunteer and Leadership Roles

Vice President

January 2024 - December 2024

CSE Club

PSTU