

# Arjon Golder

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 Arjon Golder |  Arjon Golder |  Arjon Golder

khulna, Bangladesh


## OBJECTIVE

AI/ML Engineer & Researcher with 2+ years of experience in Federated Learning, Deep Learning, and scalable ML product development. Published IEEE conference paper on privacy-preserving medical AI (brain tumor classification), achieving 97% accuracy in clinical imaging tasks. Deployed production-grade ML solutions (FastAPI, Docker) for hospital readmission prediction, reducing risk assessment time by 60%. Recognized for technical leadership as General Secretary of PSTU's CSE Club, organizing national tech events with 2,000+ participants and mentoring 50+ junior engineers. Expertise spans PyTorch, TensorFlow, Transfer learning and model explainability for healthcare applications.

## SKILLS

- **Languages:** Python (expert), C/C++, C# (foundational), SQL
- **ML/AI:** Federated Learning (Flower, ScaleOut), Deep Learning (PyTorch, TensorFlow, Transfer Learning), AutoML (AutoGluon), Explainable AI (SHAP, Grad-CAM++), Prompt Engineering
- **Tools:** Docker, FastAPI, MLflow, DVC, Jupyter, Colab, Git/GitHub
- **Web Technologies:** HTML, CSS, JavaScript, ASP.NET Core MVC
- **Data Science:** Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Imbalanced-learn
- **Cloud & Deployment:** AWS, CI/CD
- **Research Skills:** Literature Review, Research Gap Analysis, Data Collection, Statistical Analysis, Model Evaluation, Technical Writing, Experimentation Design
- **Soft Skills:** Mentorship, leadership, Creative Problem-Solving, Song Writing

## EXPERIENCE


- **Centre for Data Science Research (CDSR)**  December 2024 - present  
AI/ML Engineer Intern Centre for Data Science Research (CDSR) 583, West Shewrapara, Mirpur, Dhaka-1216
  - Engineered end-to-end computer vision pipelines using PyTorch and EfficientNet, achieving 97% accuracy in liver fibrosis CT staging (see Projects section).
  - Collaborated on Medical AI research.

## PUBLICATIONS

C=CONFERENCE

- [C.1] A. Golder, et al. (2024). **"Optimizing Privacy and Efficiency in Brain Tumor Classification through Advanced Non IID Federated Deep Learning,"**. In *2nd International Conference on Information and Communication Technology (ICICT)*, pp. XX-XX. IEEE, 2024, Dhaka, Bangladesh. DOI: 979-8-3315-0822-7/24/\$31.00 ©2024 IEEE

## PROJECTS

- **Clinical CDSS Readmission Prediction Web App** Apr 2025 - present  
Tools: [FastAPI, CatBoost (GPU), AutoGluon, scikit-learn, SHAP, MLflow, Pandas, NumPy, Matplotlib, Imbalanced-learn, Docker, DVC, CUDA]
  - Developed a full-stack ML web app predicting 30-day hospital readmissions using EHR data, reducing manual risk assessment time by 60%.
  - Engineered a FastAPI backend with REST APIs, input validation, and SHAP-based explainability for actionable clinical insights.
  - Automated model training/hyperparameter tuning with CatBoost (GPU), scikit-learn, DVC and MLflow tracking, improving prediction accuracy to 92%.
  - Containerized deployment via Docker with CI/CD pipelines, ensuring scalability and reproducibility.
- **Liver Fibrosis CT Staging Web App with Real-Time Grad-CAM++ Explainability** Jan 2025 – May 2025  
Tools: PyTorch, Transfer learning, FastAPI, Grad-CAM++, Docker, Multi-Headed Attention 
  - Built a production-grade web app for CT-based liver fibrosis staging (F0–F4), achieving 97% classification accuracy on Kaggle datasets.
  - Integrated Grad-CAM++ visualizations for real-time model explainability, enabling clinicians to validate predictions via heatmaps.
  - Designed a responsive frontend with HTML5/CSS3/JavaScript for drag-and-drop CT uploads, instant predictions, and confidence scoring.




CERTIFICATIONS

• Machine Learning Pipelines with Azure ML Studio	November 2024
• IICT,BUET: Certificate of Presentaion	October 2024
• EDGE CSIT PSTU: Python (Django)	March 2024
• Case Western Reserve University: Inspiring Leadership through Emotional Intelligence	November 2020
• Using Python to Access Web Data	September 2020
• Python Data Structures	June 2020




EDUCATION

• Patuakhali Science and Technology University	November 2024
B.Sc. Engg (CSE)	Patuakhali, Bangladesh
◦ CGPA: 3.30/4.00	
• Govt. MM City College	2018
Pre-University Education	khulna, Bangladesh
◦ GPA: 5.00	
• Khulna zilla school	Month Year
Secondary Education	khulna,Bangladesh
◦ GPA: 5.00	

LEADERSHIP EXPERIENCE

• General Secretary	January 2024 - December2024
CSE Club, Patuakhali Science and Technology University (PSTU)	
◦ Organized 5+ national tech events (IT Carnival, hackathons, IUPC) with 2,000+ participants, connecting students with industry professionals.	
◦ Built an alumni-student networking platform, fostering mentorship for 500+ students.	
• Research Instructor and Mentor	September 2024 - Present
AI Enthusiast Program, Faculty of Computer Science and Engineering,PSTU	
◦ Designed and led hands-on workshops on reproducible research practices and ethical AI frameworks.	
◦ Mentored 50+ junior engineers in foundational ML skills (e.g., literature review, gap analysis, problem formulation).	
• Founder and Lead Singer-Songwriter	2020 - Present
Campusnama (PSTU's Original Music Band)	
◦ Founded Bangladesh's only university-based band focused on original music composition. Composed 15+ original songs and performed at inter-university festivals (e.g., Kristi's Khulna University event)	
◦ Performed alongside renowned bands including Warfaze, Nemesis, Circkut, and AvoidRafa on stage.	

VOLUNTEER EXPERIENCE

• Volunteer Coordinator	january 2014 - Present
Duronto Prottoy	
◦ Coordinated annual community initiatives , including wish fulfillment for disabled children and seed funding programs for self-reliance, impacting 500+ beneficiaries .	
◦ Led winter clothing drives and flood relief campaigns, distributing aid to 200+ families in vulnerable regions.	
• Head of Coordination	2019 - Present
PSTU IT Carnival (CSE Club, PSTU)	
◦ Managed logistics and execution of PSTU's largest tech festival (3 consecutive editions), attracting 2,000+ participants across programming contests, hackathons, and gaming competitions.	
◦ Spearheaded event planning for IT Carnival's core activities, including speaker coordination, vendor management, and real-time problem-solving for seamless execution.	
• Cultural Program Coordinator, "Antim 18"	2023
PSTU Combined Graduation Ceremony of 2017-18 session	
◦ Coordinated 2-day cultural programs for PSTU's graduation ceremony, managing 90+ stage performances across.	
◦ Collaborated with renowned bands (Circkut, Nemesis) to deliver live performances, contributing to a record attendance of 8,000+ people (Barisal's largest crowd).	

## REFERENCES

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1. **Dr. Md. Samsuzzaman**  
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