

# NOSHIN FOUZIA TASNIM

 Moghbazar, Dhaka  +880171985611  noshin0207@gmail.com  
 [www.linkedin.com/in/noshin-fouzia-tasnim-269b42220](https://www.linkedin.com/in/noshin-fouzia-tasnim-269b42220)  
 <https://github.com/nosh1325>

## RESEARCH INTEREST

Machine Learning, Image Processing, Biomedical Image Analysis, Neuromorphic Computing, Human Computer Interaction

## WORK EXPERIENCE

<b>Undergraduate Teaching Assistant/ Student Tutor</b> CSE Department, BRAC University	Jun 2024 - May 2025
<b>Executive</b> BASIS Students Forum BRACU Chapter	Jan 2021 - Dec 2024
• Coordinated between BASIS and BUCC to organize different events and seminars • Contributed in meetings and planning for NASA Space Apps Challenge 2024	
<b>Intern and Project Management Coordinator</b> Awareness 360	Sep 2021 - Aug 2022
• Best intern award for project management team and eventually appointed as staff member of same team • Presentations, meetings and creating trainer manual for project management • Project management training, mentoring new interns and conducting own project following SDGs • Arranging Youth Development Program and mentoring fellows	

## EDUCATION

<b>Bachelor of Science in Computer Science and Engineering</b> BRAC University, Dhaka	Oct 2021 - Oct 2025 Credits Completed: 136 CGPA: 3.93/4.00
• Notable Courses: Data Structure & Algorithms, Artificial Intelligence, Data Science, Computer Networks, Computer Architecture, Microprocessors, Software Engineering, Database Systems	
<b>Higher Secondary School Certificate (Science)</b> Viqarunnisa Noon School and College, Dhaka	July 2018 - Jan 2021 GPA: 5.00/5.00
<b>Secondary School Certificate (Science)</b> Viqarunnisa Noon School and College, Dhaka	Jan 2008 - Apr 2018 GPA: 5.00/5.00

## EXTRACURRICULARS

<b>Assistant Director</b> Event Management Department, BRAC University Computer Club (BUCC)	Oct 2023 - Dec 2024
• Successfully organized multiple large scale events and led volunteer teams collaborating with different departments • Managed permissions and received guests and event sponsors • Experienced in food allotment and arranging venue, created a guideline book on venue booking rules in accordance with university policies • Planned and supervised activities of BUCC Study Corner	
<b>Organizer, Intrahacktive 1.0</b> Event Management Department, BRAC University Computer Club (BUCC)	Oct 2024 - Nov 2024
• Helped with planning and execution of the entire event and organized hackathon, database wizard, debugger • Led the logistics team and worked with volunteers, guest reception	
<b>Member, IEEE Computer Society</b> IEEE BRAC University Student Branch	Apr 2022 - Dec 2022
• Participated in different workshops on AI/ML and Cybersecurity	

## RESEARCH EXPERIENCE

### Classification of Alzheimer's and Dementia subtypes using R-STDP Driven Spiking Neural Networks

AI/ML, Neuroimaging, Undergraduate Thesis

Co-developed an SNN autoencoder model for classification of MRI images of demented and non-demented patients under the supervision of my thesis supervisor, Dr. Md. Golam Rabiul Alam and co supervisor, Zayed Humayun. We built a primary dataset by collecting brain MRI images from the National Institute of Neurosciences for 8 months with IRB approval. My contributions to this thesis included data collection, building the model and hyperparameter tuning for the best results. The model incorporates Forward-Forward Learning and R-STDP for training without backpropagation and ensemble classifier for testing. The model achieved a 77.92% accuracy and 79.47% precision on demented vs non-demented classification. The model was optimized using a CNN branch for feature extraction which achieved a 86.98% accuracy.

---

## TECHNICAL SKILLS

- **Languages:** Python, C/C++, Javascript, PHP, SQL, HTML, CSS, RISC-V, x86 assembly language
  - **Frameworks & Libraries :** Laravel, React.js, Next.js, PyTorch, , Matplotlib, TensorFlow, Pandas, Scikit-learn
  - **Development Tools:** LaTeX, Git, Github, Postman, Jira, Flex, Bison
  - **Database:** MySQL, PostgreSQL
  - **Hardware design and Networking Tools:** LTSpice, Quartus, Verilog HDL, Cisco Packet Tracer, Wireshark
  - **Microcontrollers:** STM32, Arduino, RaspberryPi
  - **Office Tools:** MS Office, MS Excel, MS Powerpoint
- 

## ACADEMIC PROJECTS

### Club Management System

A dynamic website created for club management with deployment

- There were 3 panels, admin, user and club leaders with different dashboards
- Next.js framework used, PostgreSQL used for database and Vercel for deployment

### Travelcom

A website created for finding travel partner and planning trips

- Laravel framework used for backend, HTML, CSS, React used for Frontend
- Admin notification feature, user chatting and group trip features implemented

### Smart Water Cleaner Robot

A robot built using Arduino for collecting trash from water and monitoring water quality

- Arduino Uno R3 used as microcontroller, C used for arduino code and L293D motor driver shield used for driving motors
- The robot can navigate using HC-SR04, collect trash and monitor water quality using temperature and turbidity sensor and display it on an I2C LCD

### Credit Card Fraud Detection

A machine learning project made for detection of fraud credit cards

- The dataset was oversampled and undersampled to reduce class imbalance and preprocessed
- Machine learning models KNN, Logistic Regression, Decision Tree & random forest were trained and tested

---

## HONORS AND AWARDS

### Vice Chancellor's List

For obtaining a GPA of 3.9+ for 9 semesters

### Dean's List

For obtaining a GPA of 3.7+

### Scholarship based on previous results

Received 50% waiver on tuition fees at BRAC University for maintaining a 3.8+ CGPA

### Bronze Award at Duke of Edinburgh International Awards

It was a 6-month long program combining skill development, physical activity, voluntary service and adventurous journey

---

## REFERENCE

### Dr. Farida Chowdhury

Professor, Department of CSE  
BRAC University  
farida.chowdhury@bracu.ac.bd

### Rafeed Rahman

Senior Lecturer, Department of CSE  
BRAC University  
rahman.rafeed@bracu.ac.bd