# Tameem Uz Zaman

tameemturag@gmail.com · LinkedIn · Github · Portfolio
Edinburg, Texas, 78541

## SKILLS

- Software Development
- Reinforcement Learning
- Amazon Web Services (AWS)
- Relational Database
- NoSQL Database
- Test Automation
- API Documentation
- CI/CD Pipeline
- Git Version Control
- Data Structures & Algorithms
- Programming Languages - Java, Python, C++, JavaScript.

## EDUCATION

MS in Computer Science
**The University of Texas Rio Grande Valley**
Expected 2026

- Reinforcement Learning (Built a Image based recommendation system using PyTorch)
- Digital Image Processing (Built an Image Feature Extraction system in Python)

Bachelor of Computer Science
Major in Computer Networks & Security
**University of Technology Malaysia** (#181 QS Ranking)
CGPA - 3.7/4.0 (Dean's Award)

## PROFESSIONAL EXPERIENCE

**MARS Lab - The University Of Texas Rio Grande Valley** **Sep. 2024 - Present**
**Graduate Research Assistant**

- Under Dr. Qi Lu, researching deep reinforcement learning in swarm robotics.
- Developed penalty based reward system, which increased foraging speed by 15%.
- Used PyTorch to train the model and view the data in tensor board.
- Used C++ in Argos simulation to simulate the robots.

**Wavelet Solutions Sdn Bdn - Kuala Lumpur, Malaysia** **May 2023 - Nov. 2023**
**Software Developer Intern**

- Reduced the EC2 usage, which helped the company to save $60,000/year.
- Created test automation using TestNg and API documentation using WriterSide.
- Added indexing in PostgreSQL, increased the speed of database query by 10%.
- Used Java Spring to develop backend APIs.
- Collaborated in an agile manner with cross functional team sprints, participated in 100% of daily scrums.

**Firmus Sdn Bhd - Kuala Lumpur, Malaysia** **Oct. 2022 - Feb. 2023**
**Security Analyst Intern**

- Performed 2 onsite network penetration testing using Nmap and Nessus in every week.
- Used "Fastest" crawl strategy in Burpsuite to increase web application vulnerability scanning by 20%.
- Delivered 5 reports for the vulnerability findings in every week.
- Gave 100% attendance.

## LATEST PROJECT

**TD Actor-Critic Algorithm for LunarLander-v2**

Developed a reinforcement learning agent using the TD Actor-Critic (AC) algorithm to navigate the LunarLander-v2 environment.

**Technologies Used:** Programming Language (Python), Framework (PyTorch) and Environment (Gymnasium)

**Key Contributions:**

- Designed and implemented neural network architectures for both the Actor (policy network) and Critic (value network) components, enabling effective policy learning for spacecraft landing.
- Utilized the softmax function to generate action probabilities, facilitating efficient exploration and exploitation strategies.
- Fine-tuned hyperparameters, including learning rates, discount factors, and update frequencies, to optimize training performance.
- Tracked and visualized training progress using TensorBoard, demonstrating the agent's convergence toward successful landings through improved total rewards over episodes.
- Saved and tested the trained model, showcasing its ability to operate effectively in the simulated environment.

GitHub Link