Tanjina Piash Proma

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Skills

- Machine Learning (ML)
- Deep Learning (DL)
- Computer Vision
- Image Processing
- Natural Language Processing (NLP)
- Artificial intelligence (AI)

- Python
- TensorFlow
- PyTorch
- MATLAB
- C++
- OpenCV
- NLTK Toolkit

- Keras
- Scikit-learn
- Pandas
- Numpy
- Transformers
- GitHub

- MLOps
- GCP
- Docker
- Kubernetes
- Kubeflow
- GKE
- Apache Beam

Experience

JANUARY 2019 – FEBRUARY 2022
Research Associate / Independent University, Bangladesh (IUB)

- National Medicine Image Database creation funded by the ICT Division, Government of the People's Republic of Bangladesh.
- Face recognition for biometric security solutions.
- Analysis of CERN's very large particle data using machine learning.
- Video captioning with NLP (Attention Network building from video feature streams).

JANUARY 2016 – DECEMBER 2022
Research Assistant / Independent University, Bangladesh (IUB)

- AI Lead of Team IUB Attendant in University Rover Challenge 2018 held in Utah, USA.
- Autonomous rover navigation using GPS and vision-based path planning.
- Onboard camera depended object detection in real life terrain in MDRS, Utah, USA using machine learning framework TensorFlow & OpenCV.
- Path generation, update, and modification of rover maneuver map.
- Pill detection using intrinsic geometric shape, color, and text from pill image.
- Raspberry Pi Controlled Image Processing Based Line Follower.

OCTOBER 2017 – MARCH 2018
R&D Engineer / Bitec Software

- Machine learning algorithm implementation analysis.

- Proposal writing, scope, objective analysis and documentation
- Presentation in the Prime Minister's Office of Bangladesh.

OCTOBER 2017 – MARCH 2018
Teaching Assistant / Independent University, Bangladesh (IUB)

- Artificial Intelligence (CSC425)
- Image Processing & Pattern Recognition (CSC420)
- Machine Learning (CSC424)
- Introduction to Computer Science(CSC101)

Education

JANUARY 2013 –AUGUST 2017
BSc in Computer Science / Independent University, Bangladesh (IUB)

Minor: Robotics   CGPA: 3.54

Publications

- Md. Zakir Hossan, **Tanjina Piash Proma**, M Ashraful Amin. "Medicine Recognition Using Intrinsic Geometric Property from Pill Image". Pacific Rim International Conference on Artificial Intelligence (PRICAI 2016). *Winner of the Best Presentation Award*

- Ishraq Ul Haque, Abul Arabi, Shadat Hossain, **Tanjina Piash Proma,** Nafi Uzzaman, Mahfuz Hannan and Sajjad Hossain. "Vision Based Trajectory Following Robot along with Swarm Robotics". 3rd International Conference on Control, Automation and Robotics (ICCAR 2017)

- Abul Al Arabi, Hasib Ul Sakib, Pranabesh Sarkar**, Tanjina Piash Proma**, Jahedul Anowar, M Ashraful Amin. "Autonomous Rover Navigation using GPS Based Path Planning". Asia Modelling Symposium 2017 (AMS2017)

- **Tanjina Piash Proma**, Md. Zakir Hossan, M Ashraful Amin. "Medicine Recognition from Colors and Text". 3rd International Conference on Graphics and Signal Processing (ICGSP 2019)

Scholarship and Awards

- IUB Merit Scholarship
- Award for successful AI Lead in University Rover Challenge (URC 2018), Utah, USA.
- SECS Award 2016 (School of Engineering and Computer Science Award)

Certifications

- Deep Learning Specialization (Certificate)
    - Neural Networks and Deep Learning.

- - - - - o Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization.
    - Structuring Machine Learning Projects.
    - Convolutional Neural Networks.
    - Sequence Models.

- Natural language Processing Specialization ([Certificate](#))
    - Natural Language Processing with Classification and Vector Spaces.
    - Natural Language Processing with Probabilistic Models.
    - Natural Language Processing with Sequence Models.
    - Natural Language Processing with Attention Models.

- DeepLearning.AI TensorFlow Developer Professional Certificate
    - Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning.
    - Convolutional Neural Networks in TensorFlow.

- Data Engineering, Big Data, and Machine Learning on GCP Specialization
- Machine Learning in Production (MLOps)

Standardized Test Results

- **Graduate Record Examination (GRE), Score: 309 / 340**
    - Quantitative Reasoning: 162/170
    - Verbal Reasoning : 147/170
    - AWA: 4.0/6.0

- **IELTS, Score: 7.5 / 9.0**
    - Listening : 9.0
    - Speaking : 7.5
    - Writing: 6.0
    - Reading: 6.5