

Tawheed Islam Bhuian

Binghamton, NY | (607) 313-0528 | tawheedrony@gmail.com | LinkedIn | Github | Portfolio

EDUCATION

Binghamton University, State University of New York

Master of Science in Computer Science, Artificial Intelligence Track

Expected May 2026

Cumulative GPA: 4.0/4.00

Relevant Coursework: Algorithms, Systems Programming, Robot Perception, Artificial Intelligence

Bangladesh University of Engineering & Technology

Bachelor of Science in Electrical and Electrical Engineering

May 2022

Relevant Coursework: Digital Logic Design, Microprocessor and Embedded Systems, Digital Signal Processing

TECHNICAL SKILLS

Languages: C, C++, Python, JavaScript, MATLAB, SQL, X-86 Assembly

Software: Git, Unix, Docker, Airflow, Rundeck, Looker, Metabase

Hardware: Raspberry Pi, Jetson TX2/Orin

Additional: PyTorch, Sklearn, TensorFlow, JAX, Spark

PROFESSIONAL EXPERIENCE

Binghamton University, School of Computing, Graduate Research Assistant

Jan 2025 – Present

- Collaborated in research project for test-time adaptation of Vision Language Model via Low Rank Adaptation.
- Developing robust perception framework combining multiple modalities of sensor inputs for real-time autonomous systems.
- Collaborated in writing project proposals for NSF Computer Systems Research and NAIRR Pilot.

Telnyx LLC, Software Engineer | Remote

Apr 2023 – Dec 2025

- Automated scripts for automatic detection and reporting of billing discrepancies in telemetry records.
- Contributed to development in analytics pipeline for wireless and IoT networking product.
- Designed and deployed a real-time competitor rate integration pipeline for external pricing API.
- Developed routing and pricing reports which supported vendor negotiations to reduce carrier costs.
- Built bots and tools for billing support team to self-serve customers facing recurrent issues.

Moonfrog Labs, Data Engineer | Remote

Oct 2020 – Mar 2023

- Developed reporting metrics for monitoring growth, economy, revenue, campaigns and user acquisitions.
- Designed end-to-end analytics ETL pipeline for different marketing platforms and reporting.
- Setup & standardized user acquisition managers' campaign analytics and dashboarding processes.
- Engaged in full lifecycle of experiment manager setup, monitoring, developing A/B testing & final readouts.
- Developed a ML model to predict in app purchases based on gameplay and other statistical measures.

PUBLICATIONS

R Hossain, **T. I. Bhuian**, K. D. Kang "TDA-L: Reducing Latency and Memory Consumption of Test-Time Adaptation for Real-Time Intelligent Sensing". [Sensors](#)

R U Murshed, S. K. Druba, **T. I. Bhuian**, Rumi A. "Automated Level Crossing System: A Computer Vision Based Approach with Raspberry Pi Microcontroller". ICECE (2022) [IEEE Xplore](#)

T. I. Bhuian, Sadequl Islam, Md Forkan Uddin "Shared Encoder with Attention for Non-Intrusive Appliance Load Monitoring". ICPS (2023) [IEEE Xplore](#)

PROJECT EXPERIENCE

Real-Time Shopify Order Tracker, Project Lead

Dec 2023 – Feb 2024

Technologies: Python, PostgreSQL, Looker Studio

- Develops a Looker Studio dashboard for shipment tracking from bulk Shopify orders using Looker API.
- Designed python backend to fetch and process data from APIs, storing results in PostgreSQL and Sheets.
- Delivered a fully functional executable that shippers can use to get consolidated real-time insights for their shipments.

Send Time Optimization for Campaigns, Co-Developer

Mar 2023 – Apr 2023

Technologies: Python, AWS Redshift/S3, AWS Sagemaker

- Developed a send time optimization framework for ~1B entries of SMS and email campaigns.
- Developed ETL jobs and crawlers to discover campaign subscriber metadata to maximize email deliverability.

Real-Time Speech to Braille Converter, Co-Developer

Mar 2020 – Aug 2020

Technologies: Python, STM32, Proteus, Google Voice API

- Designed a voice to braille system in STM32 microcontroller with braille display for auditory and visual impaired people.
- Developed the software simulation using Google Voice API, STM32Cube IDE, Virtual Serial Port & Proteus.

LEADERSHIP EXPERIENCE

Binghamton University, Graduate Student Organization, Treasurer, BGSA

Sep 2025 – Present

- Organize socio-cultural events and maintain budgets for Bangladeshi Graduate Student Association at Binghamton University.