Eylam Tagor

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EDUCATION

Columbia University New York, NY
M.S. in Computer Science, **GPA: 3.81** Exp Dec 2025

- Advisor: Elias Bareinboim
- Relevant Courses: Causal Inference, Natural Language Processing, LLMs, Advanced Deep Learning, Databases
- Teaching**:** Reinforcement Learning (Fall 2025), Causal Inference for Data Science (Spring 2025)

The University of Texas at Austin Austin, TX
B.S. in Computer Science, **GPA: 3.93** May 2024

- Relevant Courses: Artificial Intelligence, Machine Learning Theory, Neural Networks, Algorithms & Complexity

SKILLS

Languages: Python, C/C++/C#, R, Java, Swift, JavaScript, MATLAB, HTML5/CSS, SQL, Bash/Shell scripting

Tools & Frameworks: PostgreSQL, PyTorch, Pandas, Scikit-learn, Anaconda, NumPy, ROS, version control systems, Git, GitHub, GitLab, Docker, Kubernetes, Firebase, AWS, Linux/Unix, TensorFlow, QEMU, Spark, Hadoop, GCP

RESEARCH/MACHINE LEARNING PROJECTS

NVIDIA AI Research Collaboration (Embodied RL)

- Devised embodied agent and training environment using OpenAI Gym using multimodal input to play diverse games.
- Worked in a group led by Dr. Jim Fan and Dr. Anima Anandkumar leveraging modern RL algorithms, LLMs, and large-scale pre-training from internet data to improve agent decision-making and performance across varied tasks.

Gymnasium for Causal Imitation Learning (Causal RL)

- Developed imitation learning algorithms that utilize causal inference theory for behavioral cloning and inverse RL.
- Parameterized classic RL environments as SCMs with latent confounders; supports observational, interventional, and counterfactual analysis.
- Introduced a novel benchmark for imitation learning assessing agent performance under confounding bias, showing 24% improvement of causal agents over state-of-the-art agents.

Residual Neural Causal Model for STEM Academic Performance (Causal DL)

- Proposed ResNCM, a novel Neural Causal Model using Python, PyTorch, Causal-Learn and DoWhy.
- Performed counterfactual analysis on exam scores (30K samples) and personalized learning data (10K samples).
- Outperformed classical and DL baselines and revealed insights such as a direct causal effect of gender on math scores.

PROFESSIONAL EXPERIENCE

Sandia National Laboratories Albuquerque, NM
Software R&D Intern Jun 2025 – Aug 2025; May 2023 – Aug 2023

- Engineered an unsupervised ML pipeline for detecting performance anomalies in production HPC systems.
- Designed a machine learning model to classify satellite footage using deep computer vision.
- Created data flow algorithms using Hadoop and Spark to manage migration and querying of volatile 10 TB dataset.

Learning Agents Research Group at UT Austin Austin, TX
Research Assistant Jan 2024 – May 2024

- Implemented multi-agent deep RL algorithms for humanoid robots to play 5-on-5 soccer.
- Developed a simulation environment to train policies for various behaviors: passing, kicking, diving, etc.
- Won 1st place in the 2024 RoboCup Standard Platform League's Challenge Shield Division, led by Dr. Peter Stone.

Big Data in Biology Lab at UT Austin Austin, TX
Research Assistant Jan 2022 – Dec 2022

- Developed dimensionality reduction and clustering algorithms to identify genes responsible for cancer aggressiveness.
- Experimented with ML & data science methods to predict relevant gene pathways given RNA sequencing data.
- Discovered novel pathways strongly correlated with persister melanoma, leading to further research on treatments.

Unlimited Robotics Tel Aviv, Israel
Software Engineer Intern Jun 2022 – Aug 2022

- Built a generalist robotic agent to assist humans in hospital and hotel tasks based on ROS and Python.
- Designed an adaptive pathfinding algorithm using LiDAR and multiple cameras and learning in real-time.
- Equipped agent with fine-tuned object recognition model enabling live tracking and physical interaction with targets.
- Assembled virtual simulation environment to train and test agent behaviors using Unity.