Arman Behnam

AI Engineering Intern at Clarkwestern Dietrich Building Systems LLC

📱 +1 312 539 8781 | @ Email | </> LeetCode | 🔗 LinkedIn | ⭘ GitHub | ⊕ Website | 📍 Chicago, IL, USA

EDUCATION

Illinois Institute of Technology   Chicago, IL, USA
Computer Science Ph.D. student; College of Computing, Department of Computer Science   *January 2023 – Present*
Research subject: Causal Representation Learning for Out of Distribution Data; **GPA: 3.20**   *Advisor: Binghui Wang*

   Relevant coursework: Computer Organization and Assembly Language Programming, Systems Programming, Science of Programming, Software Systems Architectures, Algorithms, and Operating Systems

Iran University of Science and Technology   Tehran, Iran
M.Sc. in Industrial Engineering; **GPA: 3.44**   *September 2018 – March 2022*
Dissertation title: "Railway data mining using deep learning with IoT approach"

University of Tehran   Tehran, Iran
B.Sc. in Industrial Engineering; **GPA: 3.17**   *September 2014 – July 2018*
Final project: "Integrating modern tools for long-term production planning"

PUBLICATIONS

Causal Explanation from Mild Cognitive Impairment Progression Using GNNs   Video, Code
International Conference on Bioinformatics and Biomedicine, December 2024 (Internship Research)
- Explore potential causal explanation of MCI progression by temporal patient data, including chronic diseases, biomarkers, and genetic information, into a graph structure to capture causal effects within variables.

Graph Neural Network Causal Explanation via Neural Causal Models   Video, Code, Poster
18th European Conference on Computer Vision, July 2024 (My first year's Ph.D. Research)
- A GNN causal explainer by building causal structure and the corresponding neural causal model for a graph. It outperforms the existing GNN explainers in exactly finding the ground-truth explanations.

Artificial intelligence–enabled Internet of Things Technologies in Modern Energy Grids
A book chapter from IoT Enabled Multi-Energy Systems, Academic Press, January 2023
- New AI-based IoT frameworks concentrating on architecture, and challenges of energy internet.

Data Science Leverage and Big Data Analysis for Internet of Things Energy Systems
A book chapter from "IoT Enabled Multi-Energy Systems", Academic Press, January 2023
- Smart grid intelligence protocols with attention to data-driven decision-making, and real-time data collection.

A Data Analytics Approach for COVID-19 Spread and End Prediction (Case Study in Iran)
Journal of Modeling Earth Systems and Environment, January 2021
- COVID-19 confirmed, and recovered cases trend prediction in short-time, and long-term scenarios by time series methods fine-tuned by Gaussian functions for a case study of Iran

Meta-Health Stack: A New Approach for Breast Cancer Prediction
Healthcare Analytics, November 2022
- An ensemble-based framework for predicting breast cancer with high performance

A Study on IOT Applications and Technologies in Logistics
A book chapter from "Logistics and Supply Chain Management", Healthcare Analytics, December 2020
- Analysis to determine the applications of IOT in logistics such as WSN, RFID, and GIS.

A Comparison Between Different Classification for Predicting Metastasis in Breast Cancer
"IIIEC 2021, March 2021
- Comparison of different fine-tuned ML methods for cancer metastasis cases prediction,

RESEARCH EXPERIENCE

Measure-Theoretic Anti-Causal Representation Learning Ph.D. Research
Submitted to NeurIPS 2025, January 2024 − April 2025

ACADEMIC EXPERIENCE

Grading programming assignments, and the final project Teaching Assistant
"Data privacy and security" CS528, and "Introduction to Data Structures by Java"CS401

American Journal of Lifestyle Medicine, SAGE Journals Editorial Board

The Journal of Primary Prevention, Journal of General Internal Medicine Peer Reviewer

WORK EXPERIENCE

Clarkwestern Dietrich Building Systems LLC Merrillville, IN, USA
AI Engineering Internship *May 2025 − Present, Full-time*
Mayo Clinic Rochester, MN, USA
AI Research Scientist Internship (Department of Artificial Intelligence (AI&I)) *May 2024 − August 2024, Full-time*
Tanzim-Yar (Reg-Tech) Startup Studio Tehran, Iran
Data Analyst *April 2021− December 2022, Full-time*
- Developed complete digital identification process product as a third-party product for Fin-Tech regulation

SKILLS

Languages: Python, C, Java, SQL, R, MATLAB, Assembly, VBA

Frameworks & Libraries: PyTorch, TensorFlow, Keras, Scikit-Learn, FastAPI, OpenCV, Hugging Face Transformers, LangChain, spaCy, NLTK, OpenAI API, Anthropic API, LlamaIndex

Technologies & Tools: Docker, Kubernetes, Git, MLflow, Ray, AWS SageMaker, Azure ML, Weights & Biases, DVC, MySQL, PostgreSQL, Pinecone, LlamaHub, n8n, Azure DevOps, Lucid

ML/AI Expertise: LLMs, Causality, RAG, Fine-Tuning, Transfer Learning, Neural Networks, Computer Vision, NLP, Generative AI, MLOps, Embeddings

PROJECTS

My Leetcode and Solutions | *GitHub* in Python and Java
PDF OCR and Pattern Matching | *GitHub* Intelligent Document Processing powered by Hands on OCR
Threads and User Programs in OS | *GitHub* Bochs and QEMU within the Docker environment image
Pytorch Tutorial | *GitHub* Step-by-step tutorial for training NNs and analysis via PyTorch
Stock Prediction | *GitHub* US stock prices prediction via LSTM, GRU, ensemble, and attention models

HONORS AND AWARDS

ECCV24 Paper Lightning Talk and Poster Presentation 2024 NSF TRIPODS Workshop
Toyota Technological Institute at Chicago *December 7th, 2024*
ECCV24 Paper Lightning Talk and Poster Presentation 9th Midwest Security Workshop
Purdue University *November 16th, 2024*
ECCV24 Poster Presentation NSF Site Visit (IDEAL)
Northwestern University *September 18th, 2024*
Ph.D.'s First Year Talk NSF Site Visit (IDEAL)
Northwestern University *October 12th, 2023*

CERTIFICATES

Reinforcement Learning, by University of Alberta (80 hours) November 2021
Natural Language Processing, by DeepLearning.AI (120 hours) August 2021
Excel Skills for Data Analytics, by Macquarie University (40 hours) March 2021
Deep Learning, by DeepLearning.AI (120 hours) November 2020