

Tigran Galstyan

3/11 Avan-Arinj, Yerevan, Armenia 0022

+374 (91) 00-45-49 | galstyantik@gmail.com | [LinkedIn](#) | [GitHub](#) | [Google Scholar](#)

EDUCATION

Institute for Informatics and Automation Problems of NAS RA

PhD Thesis Defence on "*Statistical and Computational Complexity of the Feature Matching Map Detection Problem*" advised by A. S. Dalalyan May 2024

Yerevan State University, Yerevan, Armenia

Master of Science in Discrete Mathematics and Theoretical Informatics GPA 19/20 June 2020

Yerevan State University, Yerevan, Armenia

Bachelor of Science in Computer Science and Applied Mathematics GPA 19/20 June 2018

Physical and Mathematical Specialized School, Yerevan, Armenia

Valedictorian in class of 140 students GPA 9/10 June 2014

EXPERIENCE

L2S CNRS - Centralesupélec, University Paris-Saclay.

September 2025 - August 2026

Postdoctoral researcher

Paris, France

- Working on theoretical foundations of the matching problem and other related machine learning/applied statistics problems.

IntelinAir Inc.

February 2025 - May 2025

Deep Learning Engineer

Yerevan, Armenia

- Developed field analysis and yield forecasting solutions using transformer-based models utilizing aerial imagery and other relevant agricultural data sources.

YerevaNN Research Lab

July 2016 - February 2025

Machine Learning Researcher

Yerevan, Armenia

- Latest work on teaching visual language models to navigate using maps.
 - paper: <https://iclr.cc/virtual/2025/32499>
- Worked on PhD thesis on statistical properties of the problem of feature matching map detection.
 - main paper: <https://proceedings.mlr.press/v206/minasyan23a/minasyan23a.pdf>
 - code: <https://github.com/TigranGalstyan/Matching-Map-Recovery-with-Outliers>
- Worked on problems of domain generalization and invariant representation learning.
 - papers:
 - [Statistically Optimal Generative Modeling with Maximum Deviation from the Empirical Distribution](#)
 - [Failure Modes of Domain Generalization Algorithms](#)
 - code: <https://github.com/YerevaNN/dom-gen-failure-modes>
- I was part of the BioRelEx project on biological relation extraction.
 - paper: <https://www.aclweb.org/anthology/W19-5019/>
 - code: <https://github.com/YerevaNN/BioRelEx>

American University of Armenia
Adjunct Professor

September 2021 - December 2021
Yerevan, Armenia

- Taught DS115 Data Structures/Algorithms in Data Science sophomore course to class of 130 students. The course was based on Stanford University's CS 161 Design and Analysis of Algorithms course by Karey Shi. The course included introduction and analysis of the foundational ideas of theory of data structures and algorithms as well as practical coding in python for solving competition-style programming problems (e.g. HackerRank, Codeforces).

Google's X, the Moonshot Factory
Software Engineering Intern

June 2019 - August 2019
Munich, Germany

- Worked on bridging the gap between simulation and real-world model performance on The Everyday Robot project.

Google NYC
Software Engineering Intern

August 2018 - October 2018
New York, United States

- I worked on a project aimed to make use of contextual biasing in the YouTube captioning system.
- I came up with and implemented various named entity transcription evaluation techniques. Also, I've conducted a lot of various experiments and measured the possible effects of biasing on YouTube captioning.

Google Switzerland
Research and Machine Intelligence Intern

July 2017 - September 2017
Zurich, Switzerland

- I worked on Google's handwriting recognition.
- Implemented adversarial training techniques and made them easily accessible across the team.

Teamable Software
Machine Learning Intern

July 2016 - September 2016
Yerevan, Armenia

- Presented papers of state-of-the-art algorithms for learning word embeddings.
- Implemented and used machine learning algorithms such as Brown clustering, Word2Vec, FastText.

PUBLICATIONS

- **Teaching Visual Language Models to Navigate using Maps.** Nuriyanyan, N., Tamazyan, H., Galstyan, T. (2025). ICLR Robot Learning Workshop: Towards Robots with Human-Level Abilities.
- **Statistically Optimal Generative Modeling with Maximum Deviation from the Empirical Distribution.** Vardanyan E., Hunanyan S., Galstyan T., Minasyan A., Dalalyan S. A. (2024). Proceedings of the 41st International Conference on Machine Learning, PMLR 235: 49203-49225
- **Matching Map Recovery with an Unknown Number of Outliers.** Minasyan, A., Galstyan, T., Hunanyan, S., & Dalalyan, A. (2023). In International Conference on Artificial Intelligence and Statistics, PMLR, 891-906.
- **Optimality of the Least Sum of Logarithms in the Problem of Matching Map Recovery in the Presence of Noise and Outliers.** Galstyan, T. & Minasyan, A. (2023). Armenian Journal of Mathematics, 15(5), 1-9.
- **Comparison of data matching methods on biomedical datasets.** Galstyan T. (2022), Vestnik of Russian-Armenian University, 1(2):46–58.
- **Failure Modes of Domain Generalization Algorithms.** Galstyan, T., Harutyunyan, H., Khachatryan, H., Steeg, G. V., & Galstyan, A. (2022). In Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition, 19077-19086.

- **Optimal detection of the feature matching map in presence of noise and outliers.** Galstyan, T., Minasyan, A., & Dalalyan, A. (2022). *Electronic Journal of Statistics*, 16(2):5720–5750.
- **Robust Classification under Class-Dependent Domain Shift.** Galstyan, T., Khachatryan, H., Steeg, G. V., & Galstyan, A. (2020). *ICML Workshop on Uncertainty & Robustness in Deep Learning*.
- **On the Tradeoff Between Accuracy and Fairness in Representation Learning.** Galstyan, T. & Khachatryan, H. (2020), *Vestnik of Russian-Armenian University*, 1:35-46.
- **On Random Weighted Sum of Positive Semi-Definite Matrices.** Galstyan, T. & Minasyan, A. (2020). *Proceedings of the YSU A: Physical and Mathematical Sciences*, 54(2 (252)), 96-100.
- **Biorelex 1.0: Biological relation extraction benchmark.** Khachatryan, H., Nersisyan, L., Hambardzumyan, K., Galstyan, T., Hakobyan, A., Arakelyan, A & Galstyan, A. (2019). In *Proceedings of the 18th BioNLP Workshop and Shared Task*, 176-190.

HONOURS AND ACHIEVEMENTS

- **Bronze Medal**, International Olympiad in Informatics (IOI), 2014, *Taipei, Taiwan*
- **Bronze Medal**, International Zhautikov Olympiad in Informatics, 2014, *Almaty, Kazakhstan*
- **Finalist**, Google Hashcode 2018, *Dublin, Ireland*
- **Finalist**, Google Hashcode 2017, *Paris, France*

SKILLS

- **Programming:** Python (NumPy, Pytorch), Machine Learning, Neural Networks, Large Language Models
- **Languages:** Armenian (Native), English, Russian (Fluent)