ANNA HAKHVERDYAN

⬡ Anna Hakhverdyan　　 anna-ssi　　✉ hakhverd@ualberta.ca　　🌐 anna-ssi.github.io

EDUCATION

University of Alberta　　　　　　　　　　　　　　　　　　　　　　　*Jan 2023 - Sep 2024*
M.Sc in Computing Science (GPA: 3.8 / 4.0)
Supervisor: Martha White
Thesis: Accounting for Hyperparameter Tuning for Online Reinforcement Learning

National Polytechnic University of Armenia　　　　　　　　　　　　*Oct 2016 - May 2021*
B.Sc in Information Technologies (GPA: 3.92 / 4.00)
Supervisor: Davit Ghazaryan
Grade: Magna Cum Laude

PUBLICATIONS

[NeurIPS] Shushan Arakelyan, **Anna Hakhverdyan**, Miltiadis Allamanis, Christophe Hauser, Luis Antonio Garcia, Xiang Ren. NS3: Neuro-Symbolic Semantic Code Search. In *Neural Information Processing Systems*, 2022.

EXPERIENCE

University of Alberta - RLAI Lab　　　　　　　　　　　　　　　　　*Sep 2024 - Present*
Research Assistant
- Preparing my thesis work on online hyperparameter tuning for journal submission.
- Developing RL-automated PID controller for a process control environment.
- Working on developing environments suitable for continual learning.
- Analyzing the impact of partial observability and limited information on experiments inspired by animal learning.

Magical Labs　　　　　　　　　　　　　　　　　　　　　　　　　　*Oct 2021 - Jul 2022*
Machine Learning Engineer
- Developed models and pipelines for autonomous vehicle control.
- Worked on compressing large neural networks with reinforcement learning agents for mobile integration.

University of Southern California - INK Lab　　　　　　　　　　　　*Jan 2021 - Nov 2021*
Undergraduate Research Assistant
Supervisor: Xiang Ren
- Developed neural module networks with hypernetworks for semantic code search.
- Researched and evaluated baselines for the model comparison.
- Used combinatory categorial grammar (CCG) for parsing textual descriptions.

Perpetuum Motors　　　　　　　　　　　　　　　　　　　　　　　　*Dec 2020 - Oct 2021*
Machine Learning Engineer
- Conducted research on developing an end-to-end autonomous driving pipeline for simulated games.

ForgeFiction　　　　　　　　　　　　　　　　　　　　　　　　　　*Dec 2018 - Jan 2020*
Software Engineer
- Developed and designed API requests and database architectures.
- Optimized the application for maximum speed and scalability.

TEACHING EXPERIENCE

CMPUT 365 / 655: Reinforcement Learning I (Head TA) *Sept 2023 - Dec 2023*
University of Alberta

CMPUT 174: Introduction to the Foundations of Computation I *Jan 2023 - Apr 2023*
University of Alberta

TALKS

Accounting for Hyperparameter Tuning for Online Reinforcement Learning
Openmind Continual Learning Retreat *Oct 2024*
M.Sc. Thesis Seminar, University of Alberta *Sep 2024*
Center for Scientific Innovation and Education (CSIE) *Jul 2024*

Reinforcement Learning in NLP
Armenian NLP Community *Feb 2022*

Learning from Code
Machine Learning Reading Group Yerevan *March 2021*

AWARDS

University of Alberta Graduate Recruitment Scholarship *Jan 2023 - Apr 2023*
University of Alberta

AGBU US Scholarship *Sep 2022 - May 2023*
AGBU

Excellence Academic Fellowship *Oct 2017 - May 2021*
National Polytechnic University of Armenia

SKILLS

Programming: Python, C#, Javascript, Bash, Git, SQL, NoSQL
Libraries: Jax, Pytorch, Numpy, Pandas, sklearn, gymnax, brax
Mathematics: Optimization, Calculus, Linear Algebra, Probability, Statistics
Languages: Armenian (native), English (fluent), Russian (fluent), Japanese (N2), Korean (L4)

COMMUNITY SERVICES

ICLR 2025 *Nov 2024*
IMOL Workshop at NeurIPS *Oct 2023*
Reviewer

RLAI Summit *Aug 2024*
Co-organizer