

Artavazd Maranjyan

✉ arto.maranjyan@gmail.com • artomaranjyan.github.io
🆔 0000-0001-8409-817X

Education

- **Ph.D. in Computer Science** **Thuwal, Saudi Arabia**
2023 – 2025
King Abdullah University of Science and Technology (KAUST)
Advisor: Peter Richtárik
- **M.Sc. in Applied Statistics and Data Science** **Yerevan, Armenia**
2021 – 2023
Yerevan State University
■ Thesis: [On local training methods](#); co-supervisors: Peter Richtárik, Mher Safaryan
- **B.Sc. in Informatics and Applied Mathematics** **Yerevan, Armenia**
2017 – 2021
Yerevan State University
■ Thesis: [On the Convergence of Series in Classical Systems](#); supervisor: Martin Grigoryan

Selected Industry and Academic Experiences

- **Research visit to Yi-Shuai Niu** **Beijing, China**
9-22 March 2025
Beijing Institute of Mathematical Sciences and Applications (BIMSA)
 - Gave talks at three universities (PKU, BUAA, BIMSA)
 - Worked with Professor Yi-Shuai Niu on a project on Server-Assisted Federated Learning
- **Internship in the group of Peter Richtárik** **Thuwal, Saudi Arabia**
June 2022 – January 2023
King Abdullah University of Science and Technology (KAUST)
 - Worked on the "GradSkip: Communication-Accelerated Local Gradient Methods with Better Computational Complexity" paper
- **Co-Founder** **Yerevan, Armenia**
July 2021 – June 2022
OnePick
 - Built an MVP platform to help content creators and marketers generate or select photos that best matched their text descriptions
 - Participated in the [InVent 2.0](#) venture building program, advancing through team formation, idea generation, product development, and pitching
 - Secured initial funding and continued development beyond the program
- **Software Engineer in Test** **Yerevan, Armenia**
September 2019 – January 2021
Picsart
 - Worked with automation team to design and develop automated solutions across several mobile/web applications
 - Worked directly with software developers, test engineers, product owners, business analysts to find and resolve issues
 - Worked closely with DevOps to suggest improvements in processes and in Jenkins Continuous Integration cycle

Awards

- **CEMSE Dean's List Award** May 2025
King Abdullah University of Science and Technology (KAUST)
Awarded for excellent academic and research performance (\$2,500 prize)
- **Dean's Award** September 2023
King Abdullah University of Science and Technology (KAUST)
Awarded to a few top students accepted to KAUST (\$6,000 annually for 3 years)
- **Outstanding Final Project Award** May 2021
Yerevan State University
Recognized for the Bachelor's thesis (awarded to 6 students among 250+ students)

Selected Publications

5. Ringleader ASGD: The First Asynchronous SGD with Optimal Time Complexity under Data Heterogeneity
Artavazd Maranjyan, Peter Richtárik
Submitted to ICLR 2026
4. Ringmaster ASGD: The First Asynchronous SGD with Optimal Time Complexity
Artavazd Maranjyan, Alexander Tyurin, Peter Richtárik
ICML 2025: Forty-Second International Conference on Machine Learning
3. ATA: Adaptive Task Allocation for Efficient Resource Management in Distributed Machine Learning
Artavazd Maranjyan, El Mehdi Saad, Peter Richtárik, Francesco Orabona
ICML 2025: Forty-Second International Conference on Machine Learning
2. MindPlayer SGD: Efficient Parallel SGD in the Presence of Heterogeneous and Random Worker Compute Times
Artavazd Maranjyan, Omar Shaikh Omar, Peter Richtárik
UAI 2025: The 41st Conference on Uncertainty in Artificial Intelligence
OPT 2024: Optimization for Machine Learning (NeurIPS workshop) **Oral presentation (top 5% of 107 submissions)**
1. GradSkip: Communication-Accelerated Local Gradient Methods with Better Computational Complexity
Artavazd Maranjyan, Mher Safaryan, Peter Richtárik
TMLR 2025: Transactions on Machine Learning Research

Reviewing

- 2024–Now Transactions on Machine Learning Research (TMLR)
2026 International Conference on Learning Representations (ICLR)
2024 SIAM Journal on Mathematics of Data Science (SIMODS)
2024 The Journal of Machine Learning Research (JMLR)

Selected Talks

5. **35^o Colóquio Brasileiro de Matemática** **Rio de Janeiro, Brazil**
July 27-31, 2025
Instituto Nacional de Matemática Pura e Aplicada (IMPA)
Delivered a talk and a poster on **Ringmaster ASGD: The First Asynchronous SGD with Optimal Time Complexity** [slides] [poster]
4. **Federated Learning One World Seminar (FLOW)** **Online**
April 16, 2025
FLOW Talk #126
Delivered a talk on **Ringmaster ASGD: The First Asynchronous SGD with Optimal Time Complexity** [video] [slides]
3. **MLR Weekly Seminar** **Online**
November 21, 2024
Machine Learning Research at Apple
Invited by **Samy Bengio** to give a talk on **MindPlayer: Efficient Asynchronous Parallel SGD in the Presence of Heterogeneous and Random Worker Compute Times** [slides]
2. **Algorithms & Computationally Intensive Inference seminars** **Coventry, England**
October 6, 2023
University of Warwick
Delivered a talk on **GradSkip: Communication-Accelerated Local Gradient Methods with Better Computational Complexity** [slides]
1. **Federated Learning One World Seminar (FLOW)** **Online**
December 7, 2022
FLOW Talk #88
Delivered a talk on **GradSkip: Communication-Accelerated Local Gradient Methods with Better Computational Complexity** [video]

Hobbies

Ultimate Frisbee, Dancing (bachata, salsa), [Board Games](#), Foosball