

Sina Sajadmanesh

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EDUCATION

Swiss Federal Institute of Technology (EPFL), PhD in Electrical Engineering	Aug 2023
Sharif University of Technology, MSc in Information Technology Engineering	Sept 2016
University of Isfahan, BSc in Computer Software Engineering	Feb 2014

EXPERIENCE

Sony AI, Senior AI Engineer – Zurich, Switzerland Dec 2025 – present

- Driving model optimization and deployment across heterogeneous hardware backends
- Owning APIs and infrastructure for large-scale vision foundation model inference and deployment
- Developing cutting-edge vision-language models for visual perception and understanding

Sony AI, AI Engineer – Zurich, Switzerland Oct 2023 – Dec 2025

- Designed and implemented a model optimization and deployment framework, supporting various model formats and hardware backends, including ONNX, TensorRT, and OpenVINO
- Co-developed a unified vision-language model supporting both image understanding and generation
- Implemented APIs for vision foundation model inference and deployment
- Developed various computer vision models, including object detection, depth estimation, surface normal estimation, super-resolution, denoising, deraining, and OCR
- Designed and implemented a unique multi-task learning framework, supporting various vision tasks and architectures with mixed-precision and distributed training

Idiap Research Institute, Research Assistant – Martigny, Switzerland May 2019 – Aug 2023

- Worked on differentially private machine learning with graph neural networks
- 3 papers in top-tier conferences (CCS, USENIX Security, and WSDM) with 340+ citations
- 7 invited talks at top universities and research institutions, including Imperial College, UIC, and Twitter
- 6 open-source projects with 130+ stars on GitHub
- 1 short course taught on "Trustworthy Machine Learning" at Artificial Intelligence Doctoral Academy
- Finalist in CSAW Applied Research Competition for the best paper award in computer security in Europe

Brave Software, Research Intern – Remote Mar 2022 – May 2022

- Developed a novel privacy-preserving federated learning framework for neural bandit models under client heterogeneity using PyTorch, Flower, Dask, and Tensorflow-Lite

Sharif University of Technology, Research Assistant – Tehran, Iran Nov 2014 – May 2019

- Worked on privacy-preserving machine learning, web data science, and information network analysis
- 4 papers in top-tier venues (WWW, TKDD, IoTJ, ASONAM) with 490+ citations
- 5+ press coverages in prominent media outlets, including MIT Technology Review, France 24, and The Independent
- 2 open-source projects with 20+ stars on GitHub
- 1 semester course taught on "Fundamentals of Programming with Python"

SKILLS AND EXPERTISE

Foundation & Generative Models: Vision & Multimodal Models (ViT, CLIP, LLaVA) · Large Language Models (LLaMA, GPT, Qwen) · Parameter-Efficient Fine-Tuning (LoRA) · Representation Learning (MAE, DINO)

Machine Learning Frameworks: PyTorch · Hugging Face (Transformers, PEFT, Accelerate, Datasets, TIMM) · OpenMMLabs (MMDetection, MMEval, MMDetection) · Experiment Management (W&B, Neptune)

System & Infrastructure: Distributed Training (DDP, FSDP) · Mixed Precision (AMP, BF16) · Multi-Node GPU Clusters (Slurm, BeeGFS) · Performance Profiling & Optimization (ONNX, TensorRT)

Engineering & Tooling: Python (expert) · Bash · C++ · LaTeX. SQL. Data Processing (torchvision, NumPy, Pandas) · Environment & Packaging (uv, pyproject.toml, ruff) · DevOps & CI/CD (Docker, GitHub Actions)

COMMUNITY AND PROFESSIONAL SERVICE

Invited Speaker: Imperial College London (2023, 2020), University of Illinois at Chicago (2022), L3S Research Center (2022), Graph Neural Networks User Group Meetup (2021), Twitter Machine Learning Seminar (2021)

Organizing / Program Committee: Privacy and Fairness in AI for Health (2023), PPAI (2024), WiseML (2023), PAIR2Struct (2022), DPML (2021)

Reviewer: CVPR (2026), TIFS (2025), NeurIPS (2024), IMWUT (2024), TDSC (2023), LoG (2023, 2022), AISTATS (2023), AIJ (2022), TBD (2021), TIST (2020), SNAM (2020), WWWJ (2018)

SELECTED PUBLICATIONS

- StellA: Subspace Learning in Low-rank Adaptation using Stiefel Manifold** Dec 2025
Zhizhong Li, Sina Sajadmanesh, Jingtao Li, Lingjuan Lyu
Annual Conference on Neural Information Processing Systems (**NeurIPS**) 🌟 Spotlight (top 3%)
- Argus: A Compact and Versatile Foundation Model for Vision** June 2025
Weiming Zhuang, Chen Chen, Zhizhong Li, Sina Sajadmanesh, et al.
IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**)
- ProGAP: Progressive Graph Neural Networks with Differential Privacy Guarantees** Mar 2024
Sina Sajadmanesh, Daniel Gatica-Perez
ACM International Conference on Web Search and Data Mining (**WSDM**)
- GAP: Differentially Private Graph Neural Networks with Aggregation Perturbation** Aug 2023
Sina Sajadmanesh, Ali Shahin Shamsabadi, Aurélien Bellet, Daniel Gatica-Perez
USENIX Security Symposium (**USENIX Security**)
- Locally Private Graph Neural Networks** Nov 2021
Sina Sajadmanesh, Daniel Gatica-Perez
ACM Conference on Computer and Communications Security (**CCS**)
- A Hybrid Deep Learning Architecture for Privacy-Preserving Mobile Analytics** May 2020
Seyed Ali Osia, Ali Shahin Shamsabadi, Sina Sajadmanesh, et al.
IEEE Internet of Things Journal (**IoTJ**)
- Continuous-Time Relationship Prediction in Dynamic Heterogeneous Information Networks** Aug 2019
Sina Sajadmanesh, Sogol Bazargani, Jiawei Zhang, Hamid R. Rabiee
ACM Transactions on Knowledge Discovery from Data (**TKDD**)

Kissing Cuisines: Exploring Worldwide Culinary Habits on the Web
Sina Sajadmanesh, Sina Jafarzadeh, Seyed Ali Ossia, et al.
International World Wide Web Conference Companion (WWW)

Apr 2017