

Sina Sajadmanesh

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EDUCATION

Swiss Federal Institute of Technology (EPFL) , PhD in Electrical Engineering	May 2019 – Aug 2023
Sharif University of Technology , MSc in Information Technology Engineering	Sept 2014 – Sept 2016
University of Isfahan , BSc in Computer Software Engineering	Sept 2009 – Feb 2014

EXPERIENCE

Sony AI , AI Engineer – Zurich, Switzerland	Oct 2023 – present
<ul style="list-style-type: none"> Working on vision and multimodal foundation models 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 based on OpenMMLab libraries and PyTorch, supporting various vision tasks and architectures with mixed-precision and distributed training 	
Idiap Research Institute , Research Assistant – Martigny, Switzerland	May 2019 – Aug 2023
<ul style="list-style-type: none"> Worked on differentially private machine learning with graph neural networks 3 published papers in top-tier conferences (CCS, USENIX Security, and WSDM) with 255+ citations 7 invited talks at top universities and research institutions, including Imperial College, UIC, and Twitter 6 open-source projects with 110+ 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 	
The Alan Turing Institute , Visiting Collaborator – London, UK	Mar 2023 – Mar 2023
<ul style="list-style-type: none"> Co-organized a workshop on "Privacy and Fairness in AI for Health" ↗ 	
Brave Software , Research Intern – Remote	Mar 2022 – May 2022
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Worked on various research projects including privacy-preserving machine learning, web data science, and social and information network analysis. 4 published papers in top-tier venues (WWW, TKDD, IoTJ, ASONAM) with 470+ citations 5+ press releases in top-tier 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" at Sharif University of Technology 	

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 (MMCV, MMEngine, 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 Committee: Privacy and Fairness in AI for Health ↗ (2023)

Program Committee: PPAI ↗ (2024), WiseML ↗ (2023), PAIR2Struct ↗ (2022), DPML ↗ (2021)

Reviewer: 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

StelIA: Subspace Learning in Low-rank Adaptation using Stiefel Manifold ↗	Dec 2025
Zhizhong Li, Sina Sajadmanesh, Jingtao Li, Lingjuan Lyu	
The Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS) (Spotlight)	
Argus: A Compact and Versatile Foundation Model for Vision ↗	June 2025
Weiming Zhuang, Chen Chen, Zhizhong Li, Sina Sajadmanesh, et al.	
The 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 ↗	Apr 2017
Sina Sajadmanesh, Sina Jafarzadeh, Seyed Ali Ossia, et al.	
International World Wide Web Conference Companion (WWW)	