

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-language and multimodal foundation models Contributed to the development of a unified vision-language model supporting both image understanding and generation, from data curation to model training and evaluation Implemented APIs for vision foundation model inference and deployment Contributed to the development of various computer vision models, including object detection, depth estimation, surface normal estimation, super-resolution, denoising, and OCR Designed and implemented a comprehensive 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 as a doctoral researcher 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" ↗ with 60+ attendees 	
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

Stella: Subspace Learning in Low-rank Adaptation using Stiefel Manifold ↗ Zhizhong Li, Sina Sajadmanesh, Jingtao Li, Lingjuan Lyu The Thirty-ninth Annual Conference on Neural Information Processing Systems (NeurIPS) (Spotlight)	Dec 2025
Argus: A Compact and Versatile Foundation Model for Vision ↗ Weiming Zhuang, Chen Chen, Zhizhong Li, Sina Sajadmanesh, et al. The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)	June 2025
ProGAP: Progressive Graph Neural Networks with Differential Privacy Guarantees ↗ Sina Sajadmanesh, Daniel Gatica-Perez ACM International Conference on Web Search and Data Mining (WSDM)	Mar 2024
GAP: Differentially Private Graph Neural Networks with Aggregation Perturbation ↗ Sina Sajadmanesh, Ali Shahin Shamsabadi, Aurélien Bellet, et al. USENIX Security Symposium (USENIX Security)	Aug 2023
Locally Private Graph Neural Networks ↗ Sina Sajadmanesh, Daniel Gatica-Perez ACM Conference on Computer and Communications Security (CCS)	Nov 2021
A Hybrid Deep Learning Architecture for Privacy-Preserving Mobile Analytics ↗ Seyed Ali Osia, Ali Shahin Shamsabadi, Sina Sajadmanesh, et al. IEEE Internet of Things Journal (IoTJ)	May 2020
Continuous-Time Relationship Prediction in Dynamic Heterogeneous Information Networks ↗ Sina Sajadmanesh, Sogol Bazargani, Jiawei Zhang, Hamid R. Rabiee ACM Transactions on Knowledge Discovery from Data (TKDD)	Aug 2019
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
Predicting Anchor Links between Heterogeneous Social Networks ↗ Sina Sajadmanesh, Hamid R. Rabiee, Ali Khodadadi International Conference on Advances in Social Networks Analysis and Mining (ASONAM)	Aug 2016