

# Sina Sajadmanesh

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## EDUCATION

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

## EXPERIENCE

<b>Sony AI</b> , Senior AI Engineer – Zurich, Switzerland	Dec 2025 – present
<ul style="list-style-type: none"><li>• Driving model optimization and deployment across heterogeneous hardware backends</li><li>• Owning APIs and infrastructure for large-scale vision foundation model inference and deployment</li><li>• Developing cutting-edge vision-language models for visual perception and understanding</li></ul>	
<b>Sony AI</b> , AI Engineer – Zurich, Switzerland	Oct 2023 – Dec 2025
<ul style="list-style-type: none"><li>• Designed and implemented a model optimization and deployment framework, supporting various model formats and hardware backends, including ONNX, TensorRT, and OpenVINO</li><li>• Co-developed a unified vision-language model supporting both image understanding and generation</li><li>• Implemented APIs for vision foundation model inference and deployment</li><li>• Developed various computer vision models, including object detection, depth estimation, surface normal estimation, super-resolution, denoising, deraining, and OCR</li><li>• Designed and implemented a unique multi-task learning framework, supporting various vision tasks and architectures with mixed-precision and distributed training</li></ul>	
<b>Idiap Research Institute</b> , Research Assistant – Martigny, Switzerland	May 2019 – Aug 2023
<ul style="list-style-type: none"><li>• Worked on differentially private machine learning with graph neural networks</li><li>• 3 papers in top-tier conferences (CCS, USENIX Security, and WSDM) with 340+ citations</li><li>• 7 invited talks at top universities and research institutions, including Imperial College, UIC, and Twitter</li><li>• 6 open-source projects with 130+ stars on GitHub</li><li>• 1 short course taught on "Trustworthy Machine Learning" at Artificial Intelligence Doctoral Academy</li><li>• Finalist in CSAW Applied Research Competition for the best paper award in computer security in Europe</li></ul>	
<b>Brave Software</b> , Research Intern – Remote	Mar 2022 – May 2022
<ul style="list-style-type: none"><li>• Developed a novel privacy-preserving federated learning framework for neural bandit models under client heterogeneity using PyTorch, Flower, Dask, and Tensorflow-Lite</li></ul>	
<b>Sharif University of Technology</b> , Research Assistant – Tehran, Iran	Nov 2014 – May 2019
<ul style="list-style-type: none"><li>• Worked on privacy-preserving machine learning, web data science, and information network analysis</li><li>• 4 papers in top-tier venues (WWW, TKDD, IoTJ, ASONAM) with 490+ citations</li><li>• 5+ press coverages in prominent media outlets, including MIT Technology Review, France 24, and The Independent</li><li>• 2 open-source projects with 20+ stars on GitHub</li><li>• 1 semester course taught on "Fundamentals of Programming with Python"</li></ul>	

## **SKILLS AND EXPERTISE**

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**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**

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**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**

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### **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)

