# Sina Sajadmanesh

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## Education

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| **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
- 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
- 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
- Co-organized a workshop on "Privacy and Fairness in AI for Health"  with 60+ attendees

**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 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

**Programming Languages:** Python, C++, Java, SQL, Shell, LaTeX

**Machine Learning and AI:** PyTorch, TensorFlow, HuggingFace, OpenMMLab

**MLOps and DevOps:** Weights & Biases, Docker, GitHub, Dask, Neptune, Linux

**Privacy-Enhancing Technologies:** Flower, Opacus, Auto-DP

## 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** ⧉     Dec 2025
Zhizhong Li, Sina Sajadmanesh, Jingtao Li, Lingjuan Lyu
The Thirty-ninth Annual Conference on Neural Information Processing Systems (**NeurIPS**)

**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, et al.
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**)

**Predicting Anchor Links between Heterogeneous Social Networks** ⧉     Aug 2016
Sina Sajadmanesh, Hamid R. Rabiee, Ali Khodadadi
International Conference on Advances in Social Networks Analysis and Mining (**ASONAM**)