Dr. Inam Ullah Khan

I am a senior researcher in machine learning, and decentralized systems. I have presented privacy-preserving technologies for machine learning/deep learning on various data types (i.e., relational data, textual data). The techniques require me to have strong knowledge of state-of-the-art machine learning/deep learning models to analyze their vulnerabilities and protect them.

EXPERIENCE

2024 – Continued

PostDoc Research Fellow at SMU's Department of Civil and Environmental Engineering, Southern Methodist University, USA

2023 – Continued

PostDoc Research Fellow at School of Computing and Communications, Lancaster University, UK

2023 – 2024

Postdoctoral Research Fellow AI and Cyber Security at Edge Hill University, UK

2022 – Continued

Assistant Professor at COMSATS University Islamabad, Islamabad, Pakistan

2015 – 2022

Lecturer at COMSATS University Islamabad, Lahore, Pakistan.

2013 – 2014

Lecturer at Federal Urdu University Islamabad, Pakistan.

Qualifications

2022

PhD in Electrical Engineering, Lancaster University, UK

2013

> **Master's in Electrical Engineering from COMSATS University Islamabad, Islamabad, Pakistan.**

RESEARCH INTERESTS

- **Privacy:** Differential Privacy, k-Anonymity
- **Artificial Intelligence:** Federated Learning, Machine Learning, Deep Learning, Image Classification
- **Domain:** Smart Grids, IoT

SKILLS

- **Programming:** Python, Matlab
- **Machine Learning:** PyTorch, Tensorflow, MXNet, Scikit-Learn, Numpy, Pandas, Matplotlib
- **Tools:** Docker, Git, Linux

PROJECTS

2022 – Developing

Optimal demand-supply energy management in smart grids

#Python

Everything goes down if you do not have power: the financial sector, refineries and water. The grid underlies the rest of the country’s critical infrastructure. This thesis focuses on four⋯

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RECENT PUBLICATIONS

[All Publications]

2012

Privacy-preserving Decentralized Learning of Knowledge Graph Embeddings
Hoang, Anh-Tu, Lekssays, Ahmed, Carminati, Barbara, and Ferrari, Elena
In Proceedings of the Workshops of the EDBT/ICDT 2023 Joint Conference, Ioannina, Greece, March, 28, 2023, vol. 3379, 2023

Time-Aware Anonymization of Knowledge Graphs (Accepted)
Hoang, Anh-Tu, Carminati, Barbara, and Ferrari, Elena
In the ACM Transactions on Privacy and Security (TOPS), vol. , pp. , 2022

Privacy-Preserving Sequential Publishing of Knowledge Graphs
Hoang, Anh-Tu, Carminati, Barbara, and Ferrari, Elena
In 2021 IEEE 37th International Conference on Data Engineering (ICDE), vol. , pp. 2021-2026, 2021