Marie Skłodowska Curie Action – Postdoctoral Fellowship 2023
Expression of interest – Hosting offer
(MSCA-PF-2023)

Contact Person/Scientist in charge	**Name**	Pedro
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Department /Institute /Centre	**Name**	Departamento de Ingeniería de Sistemas Telemáticos, ETSI Telecomunicación
	Address	Avenida Complutense 30
	Province	Madrid
Research Area		Information Science and Engineering (ENG)
Brief description of the Centre/Research Group		The school of Telecommunication Engineering at UPM is the oldest school in Spain and one of the largest with an excellent track record of industrial and academic research. The department of Telematic Systems Engineering focuses on network related systems and protocols with research groups on different topics covering networks, computing, big data, and artificial intelligence. The next generation Internet group has a long track record of research on big data, software, and networks both in collaboration with the industry and in academic research. Please check recent publications by the host in this link: Pedro Reviriego - Google Académico
Project description		The Project will focus on the study of probabilistic data structures also known as data sketches. In more detail, the optimization of approximate check filters, cardinality estimators or frequency sketches for network and storage applications will be considered for both hardware and software implementations. In addition to those optimizations of data sketches, non-functional aspects such as security, privacy and reliability will also be studied. The project is expected to produce publications in top data structures and networking conferences and journals. To get a better idea of the topics of the project please have a look at a few examples of previous works of the hosting team on the topics of the project: Adaptive Cuckoo Filters | ACM Journal of Experimental Algorithmics Perfect cuckoo filters | ACM CoNext The Logarithmic Dynamic Cuckoo Filter | IEEE ICDE Flexible Packet Matching with Single Double Cuckoo Hash Algorithmic TCAMs: Implementing Packet Classification Algorithms in Hardware On the Privacy of Counting Bloom Filters On the Security of the K Minimum Values (KMV) Sketch
Applications: documents to be submitted and deadlines		Please provide a short CV and a letter of motivation by the 30th of April 2023.