

## POLITECNICO DI TORINO

## Paolo Garza

Subject: Recommendation letter for Mr. Matteo Merlo

To whom it may concern:

I am an associate professor at the Department of Control and Computer Engineering of the Politecnico di Torino and I lecture on Big Data, Data mining, and Database systems. My current research interests are in the field of data analytics and are focused more specifically on data mining, machine learning, and big data analytics.

Since October 2021, I have been the Coordinator of the Master's degree in Data science and engineering at Politecnico di Torino.

I have known Matteo Merlo since March 2021, first as his teacher in the "Distributed Architectures for Big Data Processing and Analytics" course and then by being his academic supervisor for the thesis focused on the design and application of deep learning models in the hazard emergency management domain at the LINKS foundation, a research institute founded by the Fondazione Compagnia di San Paolo.

I had the opportunity to observe his participation and interaction in classes. He has attended the lectures with a continuous interest. The course is focused on Big data architectures, Big data analytics, and parallel programming based on the MapReduce programming paradigm and the Spark framework. Matteo has shown a significant interest in big data analytics. On the final exam of Distributed architectures for big data processing and analytics, he scored 29 over 30.

He did his thesis work at the LINKS foundation, designing, implementing, and applying deep-learning-based models in the emergency management domain. Specifically, he worked on deep learning models to solve the burned area delineation and severity estimation tasks. The models have been designed and applied to satellite imagery. During the thesis period, Matteo collected the data, designed the Deep Learning models, and empirically evaluated several DL models. He demonstrated his ability to learn novel concepts. He did his work precisely and in a timely manner.

In collaboration with the researchers of the LINKS foundation, he has planned to submit two papers: one about the collected data set and another one on the proposed burned area delineation and severity estimation models.

Matteo is a good candidate for any data science and machine learning job.

Should you need any further information, please feel free to contact me.

Sincerely,

Paolo Garza

Prof. Paolo Garza

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