



Verona, June 28th 2018

Letter of recommendation for Dr. Francesco Pace

To whom it may concern,

I am very pleased to write this letter in support of Dr. Pace.

I got to know Francesco in 2015 when he started his PhD at Eurecom, under the supervision of Prof. Michiardi. I have collaborated previously with Prof. Michiardi on some topics, including scheduling for data intensive applications, and we were interested to continue our collaboration in such a direction. He suggested to include Francesco in our collaboration, and since that time I have been following Francesco's work quite closely.

The topic tackled by our work together was, and still is, very challenging, since different problems arise when the scheduler needs to include different dimensions (with different characteristics) and resources must be coordinated in order to avoid wasting work. Francesco showed many outstanding skills in studying the problem at hand, and he has always been able to provide his own viewpoint. He actively contributed to define the objectives of the research, proving a deep understanding of the subject.

In particular, Francesco focused on a scheduling algorithm for distributed applications that leverage the elastic nature of the application themselves to exploit all the available resources, yet minimizing the average turnaround time, i.e., the time it takes for the applications to complete once launched by the users. Since the problem is NP-hard, Francesco studied a heuristic that improved over the state-of-the-art solutions available for cluster scheduling. Not only Francesco assessed the solution through simulation, but also helped in the implementation of a real-system, which he used for real experiments. He was extremely careful in designing and evaluating the whole system, and he showed a deep understanding of the problem. The outcome has been published in a main IEEE conference, and it has been appreciated by the academia and the industry as well.

The following work represented an evolution where the system not only considers the requested resources, but also the actual used resources to make scheduling decisions. This specific work has been autonomously proposed and studied by Francesco, showing his independence in carrying on the research. Also in this case, he obtained a set of original results that has been collected in a publication submitted to a major conference venue.

In summary, I truly believe that Francesco is very talented and particularly fit for scientific research and development. He possesses creativity and critical thinking, he is ambitious, reliable and he is able to communicate with people conveying passion and expertise. Therefore, I am confident that he will be a useful resource for any team, I recommend him very strongly and I am sure he will be able to continue making important contributions.

Yours sincerely

A handwritten signature in blue ink, reading "Damiano Carra".

Dr. Damiano Carra

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