**ZHEJIANG UNIVERSITY**

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To whom it may concern,

It is a great pleasure for me to write this letter of recommendation for Dr. Naeimeh Omidvar. I have known Dr. Omidvar for more than six years since she started her Ph.D. studies in HKUST in our research group, where I was a Research Assistant Professor. Since then, she has always been in direct collaboration with me, working on various research problems in the area of optimization for data science.

Dr. Omidvar's research works span a wide range of topics bridging between theoretical computer science and real-world engineering problems. She works on various areas of optimization and stochastic optimization to both expand the theoretical borders of this field and also apply the theory to solve the emerging problems in various computer science and communications applications.

Recently, Dr. Omidvar's contributions in stochastic optimization have led to a significant improvement of state of the art in parallel stochastic optimization, in particular in the context of non-convex stochastic multi-agent optimization problems. Stochastic multi-agent optimization is a fundamental building block for the design of distributed systems and networks. Her proposed framework has led to a significant improvement on the convergence speed compared to the best popular algorithms in the related literature from parallel optimization to deep learning areas. This framework can be utilized to solve a large class of optimization problems arising in important emerging applications from various fields, such as large-scale machine learning and wireless networks.

Dr. Omidvar's characteristics, including her determination, innovative thinking, great motivation, remarkable mathematical background, independence, and problem solving skills are her great assets helping her in the research carrier. In spite of frequent challenges that are naturally encountered in the mathematical research problems of this field, she never gives up easily and always tries her best to come up with new ideas and find new directions to solve the problem. She considers no limit for herself, and can quickly introduce herself to new concepts in mathematics and computer science. Moreover, while working on problems, she has meticulous

attention to every single detail, which significantly helps her to identify the crucial points to attack the problem.

Besides, I would like to mention that, in addition to being technically capable, Dr. Omidvar is well mannered, trustworthy, and has a warm, kind, and cooperative working attitude with other team members. She is very passionate about collaboration with others and is always ready to help them, which are crucial factors for teamwork.

To conclude this letter, I feel entirely confident to recommend Dr. Omidvar for pursuing her carrier at any top-level academic or research position in the field of computer sciences, optimization, communication networks, machine learning, and data analysis. With her great potentials, abilities, and analytical capabilities and with the high level of motivation she has, I am sure that she will be an outstanding asset to any graduate research institute. I am sincerely and wholeheartedly hoping that you will extend an offer to Dr. Omidvar for an academic position in your institute.

Should you need any further information or perspective about Dr. Omidvar, please do not hesitate to contact me.

Yours sincerely,

An Liu