



University at Buffalo
The State University of New York
Department of Computer Science and Engineering

Dear Faculty Search Committee,

It is my great pleasure to write this letter of recommendation for Mr. Si Chen for a tenure track faculty position in your department.

Si is a Ph.D. student in our department since August 2012. Before joining our department, Si had two years' experiences doing research on wireless sensor network and cognitive radio at Electrical Engineering department. These two years of training has provided him very solid theoretical background on communication and networking.

Si's current research direction is on the security issues in cyber physical system. I've already collaborated on two papers with Si since he joined our department. What impressed me the most during our collaboration were his intelligence, knowledge, programming skills, and most importantly, his passion towards the research work.

Si is an extremely brilliant, independent and self-motivated person. Unlike many other students who request detailed guidance from advisor, he is able to formulate the research problems all by himself. He is a quick learner and has the strong desire to learn. He is always interested in and in fact very good at keeping up with new technologies, and he likes testing new ideas. He also works very hard and he turns out to be very productive.

As a person, Si is a sincere, hard-working, proactive, and always a positive person. The environment in our department encourages individual development as well as team work. Si has excelled under such a collaborative environment. I am sure that he will continue to succeed in a similar environment and will be a good colleague. I enjoy collaborating with Si personally as much as I do technically.

In the last two years, Si has accomplished a number of important research projects in the area of smartphone sensing. He has developed a crowd sensing system which is able to collect users' smartphone sensory and camera data, and then use this information to reconstruct the indoor environment. He has worked out a suite of reconstruction algorithms based on 'divided and conquer' method. He also proposed a novel idea that exploited the sequential relationship between each consecutive frame from the crowd sourced video to improve the overall performance. The real-world experiment result demonstrated that his techniques achieved a significant improvement of accuracy compared with other state-of-the-art crowd sensing indoor environment reconstruction systems.

I will not elaborate on his research achievements in this letter since you will find more detailed information from his research statement. Rather, I would simply point out some facts that may



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help you to evaluate Si's research capability and quality. His published conference papers are in prestigious ACM and IEEE outlets, such as Sensys, MobiHoc and ICDCS, which are the top conferences in the computer system community. The one submitted to Sensys 2015 had survived the rigid review and got accepted. This is the first paper that our department has ever published on Sensys, which is a great achievement.

Throughout my career, I have interacted with and known many excellent researchers and students, and Si is certainly on the top portion of the list. His research accomplishment during the past two years should be sufficient to prove his research ability. I am sure he will develop into a prominent researcher in the area of cyber physical security and mobile sensing, generate more quality work, and contribute significantly to the research community.

In summary, Si is an extremely brilliant, passionate, productive, and highly accomplished individual who wants dedicate himself to an academic career and he is also well-prepared for it. I enthusiastically recommend Si for the position and I am sure he will bring credit to whichever institution he joins upon completion of his Ph.D. degree.

Your favorable consideration of Si's application for the faculty position would be greatly appreciated. If I can provide you with any other information, please do not hesitate to contact me by phone or email.

Sincerely,

Dr. Chunming Qiao

Chair, Professor, IEEE Fellow

Department of Computer Science & Engineering

University at Buffalo, the State University of New York