University at Buffalo
State University of New York

Department of Computer Science and Engineering

February 3, 2016

Summer Internships Committee
Microsoft Research
Re: applicant Srinath Goud Vanga

Dear Summer Internships Committee:

I am happy to provide a reference for Mr. Srinath Vanga. I have known him since his entry into our Master's program last August (2015), first as a student in my Fall 2015 course "CSE596: Theory of Computation" and now in an Independent Study on statistical issues related to my statistical model for detecting cheating with computers at chess.

Mr. Vanga earned a B in CSE596. He was one of only a few Master's students in a course that is no longer required for PhD study, and was on the median in class rank. He had trouble early on from his imagination getting ahead of precision, but rallied with a B+ on the final exam which brought his points total halfway between the B and B+ targets. He has background in Physics and ascribed some of his intuitive approach to that. Perhaps what helped "flip the switch" in November was realizing that formal expression of concepts can be most *efficient*. Or perhaps he simply acclimated to Buffalo (our own groundhog noted that winter has not even come yet and gave it a pass) and raised his homework submissions so as to overcome lower grades on the first two prelim exams. He also came frequently to office hours and asked good questions while always being entertaining.

I tend to say "yes" to independent-study requests when a student comes with a particular interest. He also did some statistics in his undergraduate university and wishes to know how on earth I can advise that a 13-year-old player in one country is quite possibly cheating while a 13-year-old in another country gives no such sign. I am setting him the task of ascertaining how far p-scores obtained from a set of games must be downgraded when the set does not include *all* games by the player from a tournament—or when it spans tournaments that were not consecutive for the player. How best to quantify the possible bias from "cherry-picking" those games—how much does it matter if the games are (not) consecutive within a tournament? I hope I'm on-target in thinking that this is the kind of open-ended problem you like to see your applicants tackling, and for which computers and data give great enabling power. At any rate, it will be timely and important and—thanks to his good humor and energy—fun for me; he likes and seems up to the topic.

In sum I know him to be highly competent and reliable and a hard worker on tough subjects—most MS students take just Algorithms not both theory courses. I will be happy to answer any further questions you may have.

Yours sincerely

Dr. Kenneth W. Regan

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