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COMPUTER SCIENCE

Oct 23, 2023

Dear Awards Committee,

It's my pleasure to write in support of Prof. Menzies' (Tim's) nomination for the ACM SIGSOFT Outstanding Research Award. I have known Tim for a while; have never collaborated with him directly; I hope the occasion arises in the future! My support for this nomination hinges on several key contributions that Tim has made over the years. As I understand this award, it is intended to recognize durable and broad influence on the field; so I will describe below several broadly influential aspects of Tim's work.

First, and most important, and broadly influential, is Tim's exemplary work, and continued advocacy, relating to experimental and evaluative rigour in research directed at improving software development practice. Early experimental work in PL (and to a lesser extent in SE) suffered from the "anecdata" syndrome… some nice examples would get your theories published in POPL (and friends), or sometimes even ICSE/FSE/ASE, but such works came with no guarantees of external validity. Starting with his work on defect prediction, and then with the PROMISE repository, it's fair to say that Tim was a guiding light leading SE into much greater statistical rigour. His early work and advocacy on defect prediction was required reading for my students, while I worked in the Empirical Software Engineering area.

Second, Tim has made important and noteworthy contributions to a deeper understanding of the variability in software engineering data. Just as cultural and demographic data shows some variance based on the specific demographic under study, Tim has shown that there are a great many locally specific variations in software engineering data that can positively and negatively affect performance of models trained on this data. This is an important conceptual/experimental contribution, has been highly influential, and is a key element of Tim's exceptional (for our field) citation performance (h-index of 70, and over 21,000 citations).

To the best of my knowledge, the candidate I am endorsing has not committed any action that violates the ACM Code of Ethics and ACM's Core Values.

Thomas D Premkumar

Prem Devanbu, Research Professsor, UC Davis

One Shields Avenue, Davis, CA 95616
cs.ucdavis.edu