A Letter of Reference (more letters avaliable upon request)

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SANTA BARBARA - SANTA CRUZ

DEPARTMENT OF ENGLISH

SANTA BARBARA, CALIFORNIA 93106-3170

(805) 893-7488 / FAX: (805) 893-4622

www.english.ucsb.edu

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To Whom It May Concern:

I am delighted to offer an extremely strong recommendation for Raymond Steding. During 2018 to 2020, Ray worked as a research assistant for the WhatEvery1Says (WE1S) project that I directed as Principal Investigator (https://we1s.ucsb.edu/). Funded by a \$1.1 million grant from the Andrew W. Mellon Foundation, WE1S is a big-data initiative whose researchers across three universities (UC Santa Barbara, California State U. at Northridge, and U. Miami) collected millions of journalistic articles and social media posts discussing the "humanities," and then used computational machine learning methods (especially "topic modeling," but also other kinds of text analysis) to discover patterns in the public perception of the humanities.

During the project, Ray applied his past expertise as a computer network engineer combined with his training as a humanities M.A. student to advance our work in substantial ways. Over this period, Ray collaborated on our research team focused on "Broadcast, Internet, & Political Media" and alsoanother team researching public and academic discussion of the so-called "Humanities Crisis" (the devaluation of humanities programs, student majors, and funding in contemporary society after the Great Recession of 2008-2012).

Ray's unique contribution to our project was outstanding. While the majority of our research focused on collecting newspaper articles from 1989 to 2019 and using machine learning to understand patterns in them, a subset of our teams also collected millions of social media posts from Twitter and Reddit. Ray led our Reddit initiative by developing methods for scraping text from large runs of Reddit posts and analyzing the results. This yielded some of our richest research material because Reddit often contains the unvarnished thoughts of students and others about the relevance of the humanities. Ray curated for us specific research collections (e.g., one collection of

121,452 Reddit posts mentioning the humanities with word counts greater than 225; and another one of 11,266 Reddit posts also mentioning "first-generation" students). And he used topic modeling – a method of unsupervised machine learning that discovers the "topics" and their proportions in a large body of texts, together with which documents are most associated with those topics – to analyze the results. An example of one of his findings is reported in his "Key Finding" card <u>KF-6-7</u> (published on the WE1S web site) with the headline, "Students and others on Reddit see not the "humanities crisis" (the forest) but critical problems and issues (the trees)."

Particularly impressive is the way that Ray not only developed social-media research methods and ways to apply them, but also expanded his work in the direction of extended writings about the methodology involved. I emphasize in particular a substantial post that he published on our WE1S Research Blog in 2019 titled "A Digital Humanities Study of Reddit Student Discourse about the Humanities" (https://we1s.ucsb.edu/research_post/a-digital-humanities-study-of-reddit-student-discourse-about-the-humanities/). He was also co-author of a related post in our Research Blog titled "A Summer 2018 Saga: Webscraping for Subcorpora" (https://we1s.ucsb.edu/research_post/a-summer-2018-saga-webscraping-for-subcorpora/), which in part also reported on the tools and methods he developed to scrape text from the Web.

Generalizing about Ray based on his work for WE1S, I would foreground three attributes about him. First, he is able to take the initiative on any task and pursue it to completion in a sustained, intense way (and often also in imaginative ways that develop additional outcomes from the task). Second, he has a high level of technical expertise (see his amazing résumé) combined with a general-purpose skillset of interpretive methods and critical thinking earned from his humanities training. And, third, he is a wonderful collaborator. Indeed, on this latter score, he was universally esteemed by all our project faculty and other RAs (we had about 30 RAs at any one time) as one of the people whose professional companionship we enjoyed the most. Ray was one of our favorite team members—a sentiment that I can personally attest to as project director.

Yours truly,

Alan Liu

Distinguished Professor, Department of English, UC Santa Barbara; Principal Investigator, WE1S Project

(original confidential letter available on Interfolio.com)