

2 Koret Way Room N631, Box 0610 San Francisco, CA 94143 tel: 415.476.4965 fax: 415.476.8899

September 3, 2019

Dear Ms. Kate Broadbent:

It is my distinct pleasure to write this letter of support on behalf of India Bergeland. I first met Ms. Bergeland in the Fall of 2018 when she matched with my capstone project through the UC Berkeley Master's of Engineering program. She expressed an interest in our project focused on applying machine learning approaches to synthesize behavioral and biological datasets to predict weight loss. Ms. Bergeland worked on a team of five students and three faculty mentors from September, 2018-May, 2019. At the outset, Ms. Bergeland showed initiative by volunteering to be the lead for team communications (i.e., meeting minutes, scheduling, organization of cloud-based data storage), which was a role she performed throughout the project period. As a team, the group applied statistical modeling approaches (i.e., logistic regression, random forests, support vector modelling, MediBoost) two analyze step count and gene expression data, both of which required feature engineering before integration in the models. Ms. Bergeland worked both independently and in pairs as well as with the larger group on all aspects of the project. From the faculty advisor perspective, she was a strong member of the team, showing a natural tendency towards leadership yet also the ability to take direction and support her peers. Another one of Ms. Bergeland's most notable characteristics is her curiosity and desire to understand problems from a higher conceptual level rather than simply accomplish immediate tasks.

As evidence of this characteristic, in December, 2018, Ms. Bergeland approached us with an interest in volunteering with our research lab in order to gain additional experience. She had a very open-ended mindset and willingness to take on many learning opportunities, ranging from bench work in a basic science lab to coding for analysis of large biological datasets. Several times she was able to respond to requests to manipulate and organize datasets with little notice and very quick turn-around time. Ms. Bergeland is now developing quality control pipelines for gene expression data at each processing time point (i.e., raw reads, trimmed reads, alignments) and is now researching unmapped reads to understand the impact of our pipelines on generating these reads. Since January, 2019, Ms. Bergeland has met with our team weekly and consistently delivers results according to the time frames mapped out by the team. Another particular strength of Ms. Bergeland's is her ability to accurately estimate her capacity and workload. She does not hesitate to speak up if she feels a timeline is not feasible, and therefore always delivers her work on time.

If our team was currently in a position to offer Ms. Bergeland a job, we would not hesitate to do so. I give her the highest recommendation and would welcome her to return to our lab in the future. She will be a reliable and productive contribution in her future endeavors and any team will be lucky to have her.

Please do not hesitate to contact me if I can be of any further assistance.

Sincerely,

Elena Flowers, PhD, RN Associate Professor Department of Physiological Nursing & Institute for Human Genetics UC San Francisco