

8 November, 2020

**To whom it may concern**

Re: Reference letter for Ibrahim Alhas

I have known Ibrahim for approximately one year, over which time I have been his individual project supervisor for his MSc qualification. The individual project is a significant piece of work that students work on, mostly independently, throughout the academic year; the final submission consists of a piece of software and a detailed written report. During this time, I have met with Ibrahim regularly, and have become familiar with his work.

In the individual and group supervision meetings with Ibrahim, he presented his work and progress on the project to me and his fellow students. He is a clear presenter, and does a good job of explaining the sophisticated and technical aspects of his work. His written work is also clear and understandable. His attendance and punctuality at our meetings was excellent.

Ibrahim's project investigated the feasibility of using argument mining techniques to extract and analyse a data-set from social media discussions. The student demonstrated independence and initiative throughout the project. The choice of machine learning and natural-language processing to the problem was the students own idea. The student altered the direction of the project based on their own findings and background research; this demonstrates an ability for individual work, creative thought, and a capacity to think critically — in my experience I have found this to be a rare combination in a post-graduate taught student.

On academic merit, Ibrahim performed very well on the project, achieving a final mark of 72%, putting him in the top 10% of his cohort. Despite challenges in his personal life, he delivered a high-quality project, which evidences the passion and commitment he has to his work.

As a person, I have found Ibrahim to be mature and polite, both with me and his fellow students.

For these reasons, I enthusiastically recommend Ibrahim.

Yours faithfully,

Dr Josh Murphy