**LETTER OF RECOMMENDATION**

**Date: Nov 29th, 2021**

To whomsoever this may concern,

I write this letter in regards to Ms Ashima Singhal, from Maharaja Surajmal Institute of Technology. From January to June of this year, Ashima interned with our SCSE laboratory in Nanyang Technological University, Singapore, to work on Template-based Domain-Specific Natural Text Generation for Named Entity Recognition for Emergency Response System as part of her thesis.

I am an Associate Professor in the School of Computer Engineering and am supervising Ashima for her thesis. See: <https://personal.ntu.edu.sg/aseschng/default.html>, my NTU webpage for more details about me.

During her internship, I found Ashima to be a sincere, motivated, and diligent student with an excellent aptitude for research. She was proactive in dealing with all parts of her work and made sure that she kept me updated about the task at hand. She worked on various ways to generate text in a controlled environment for Named Entity Recognition. She successfully implemented a Regular Expression based Model which constructs Weighted Finite-State Transducers for computing combinational data using sentence templates using the OpenFST library. She later pivoted her work towards transformer-based approaches starting with seq2seq GPT-2 but the results were not up to the mark. Hence with my suggestion, she shifted towards the few shots T5 model for paraphrasing which showed great potential. Starting with rule-based classical approaches to finally concluding with such complex transformer models, Ashima was able to conclude her thesis successfully under my supervision.

Overall, she has performed extraordinarily during her time at the University. She has showcased strong analytical skills and can grasp even the toughest of concepts with ease. I am impressed with her ability to take feedback, positive or negative, with an unflinching smile. She digs deep into each topic, makes sure to carry out relevant research, and then analyzes each aspect of the task with her keen eye for detail. Ashima has shown to have the grit, merit, and perseverance to excel as a graduate student. Her interest in receiving higher education has been omnipresent in all her ventures and she has my highest endorsement. I believe that she will serve as an asset to your prestigious institution. She will adjust well to the rigors of your academic program owing to her sharp intellect and passion. I wish Ashima good luck in all her future endeavours.

Should you require any additional information about Ashima's internship with Nanyang Technological University, please do not hesitate to contact me at the number or email below. Thank you.

Sincerely,

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