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November 23, 2023

To Whom It May Concern,

I am an Associate Professor specialized in artificial intelligence at Chongqing University, one of China's leading "985-project" universities. As requested by Xinru Wang, my student, I am writing to support her application to your prestigious graduate program. I have had the privilege of knowing Xinru for four years, both as a student in my class and as a mentee in two research-oriented projects: (1) her final project and (2) the project for her participation in the 13th iCAN International Contest of Innovation.

Yet, Xinru's research potential is demonstrated in the project she submitted for the 13th iCAN International Contest of Innovation. As the founder of Cyan Mini Community (MC), a student group at our university, she led a team of 8 undergraduates to develop a WeChat mini-program based platform where students within our university can trade items. Further, to facilitate trade, she also led another team to develop an innovative locker, where the buyer can retrieve their purchased items with a passcode provided by the seller via the mini program. This project is the brainchild of Xinru herself, which I believe shows her keen eye for observation and original thinking. Perhaps more importantly, not many students who came up with an original idea could actually have the execution ability and leadership potential bring that idea to reality. Yet, Xinru did it. I first knew of her endeavor when she took the initiative to come to my office for advice, and during our conversations, I came to know the girl better. She not only had a strong technical foundation, but also knows how to manage time and lead a team, while maintaining a satisfactory academic record. Xinru's project also impressed investors in other competitions she participated in; as of now, her team has received multiple sums of angel investment totaling 2+ million RMB (c280,000 USD), from such investors as STO Express. Notably, Xinru achieved all this while she was only a sophomore student.

Xinru's later performance in the "Introduction to Artificial Intelligence" course was impressive as well. Not only did she grasp the materials taught in the class, but she also actively sought my advice regarding the latest AI technologies and their developments. She often visited me during my office hours with questions regarding AI's capacity for proving theorems, discovering patterns in data, planning complex assembly sequences, and more. Such a proactive attitude and learning habit has made her more than familiar with the techniques and architectures used to

build intelligent systems, including but not limited to heuristic search, game playing, machine learning, neural networks and probabilistic reasoning.

This course also involved a practical component in which students are expected to use AI techniques to solve a practical problem. Apropos, Xinru chose to work on a project regarding "AI-aided Medical System for Short Stature Diagnosis." Again, Xinru showcased her initiative and ability to acquire new knowledge and information. For instance, I remember providing her with relevant research papers and invited her to attend a meeting with graduate students for a better understanding such concepts as machine learning in diagnosis, predictive analytics, personalized medicine, and drug discovery. I assessed Xinru's understanding of the relevant literature on short stature diagnosis and praised her, a student without a medical background, as she could quickly absorb the foundational knowledge regarding short stature.

Soon, Xinru proved that her work on the project was technically driven and fruitful. She applied deep learning techniques to analyze left hand-wrist radiographs of children to aid the diagnosis of growth disorders. She actively participated in training the model and employed attention maps to pinpoint the discriminative regions crucial for bone age estimation regression. Moreover, Xinru's role extended beyond just technical aspects as she also facilitated the analysis of functional requirements, designing, and implementing the system. I believe that she does have the ability to blend knowledge with practice, as evidenced by the project published at: https://sirenar.github.io/graduate-project-baa.

Lastly, I would like to stress that Xinru's academic record, while impressive already, does not fully reflect her ability and talent. She pivoted from civil engineering, which she had zero interest but had only chosen out of her family's strong influence, to computer science to embrace her newfound passion halfway in her undergraduate experience, so her grades for civil engineering are not reflective of her performance as a computer science student. Also, Xinru has accumulated full-time professional experience at Meituan, one of China's leading technology companies. If admitted to your institution, she will use her real-world experience as a software engineer to enrich your academic community.

Please feel free to contact me at mnyang@cqu.edu.cn or +86 135-9408-1549 if you require any further information.

Cordially,

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