

## Dear Graduate Admissions Committee,

I am writing this letter to strongly recommend Sun Qi for graduate studies at your distinguished university. As a research fellow at the Institute of Information Engineering, Chinese Academy of Sciences, I mentor several student interns each year. Sun Qi stands out as an exceptional candidate among those students and his dedication and research abilities have truly impressed me.

Our acquaintance began in May 2023 when he proactively reached out to me via email, expressing his keen interest in the field of information security, and expressed his desire for a research project focused on phishing website detection using deep learning models. His genuine enthusiasm for cyber security immediately caught my attention, persuading me to become his adviser.

Despite his initial limited knowledge in the domain of phishing website detection, Sun Qi displayed a remarkable ability to quickly grasp complex concepts and delve into the intricacies of the field. At the beginning, I recommended him some classical articles in this area for him to get started. Every week he would give me a presentation, telling me his inspirations and thoughts from the articles he read this week. From the regular presentation I could tell his fantastic ability to quickly grasp knowledge from a new area and delve into and reflect the insights of the articles he read. And soon he caught up the state-of-the-art techniques of phishing websites detection based on URL sequence, and told me that he was about to analyze the most influential and innovative 12 articles he read, absorbing their core ideas to build his own model.

Sun Qi revealed his terrific creativity too during the studies. He conclude that even if all the state-of-the-art models can realize satisfying performances in URL-based phishing websites detection, most of them require huge amount of calculation resources for training and inference, causing them inefficient and impractical for daily use. Thus he aimed to create a novel solution which not only can reach the SOTA performance in detection, but also realize a significant improvement in detection efficiency. At last he proposed a novel methodology that effectively combines the strengths of different models, containing a parallel CNN layer, a GRU layer, a multi-head attention layer and two FC layers. This innovative model achieved an accuracy rate of 98% and an impressively improved operation efficiency by 34.93%, signifying a substantial speedup over existing models on the same dataset.

In addition to his research capacities, Sun Qi is a dedicated and hardworking individual who consistently showcased a strong commitment to his academic pursuits. He possessed excellent



communication skills and seamlessly integrated into our research team, actively participating in discussions and contributing valuable insights.

In conclusion, it is without reservation that I recommend Sun Qi for admission to your esteemed graduate program. His research abilities and innovative thinking will make him an asset to his advanced studies. I am confident that he will continue to excel and make significant contributions to the field he devotes himself to.

Yours Sincerely,

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