

To whom it may concern,

I am writing to express my keen interest in the PhD position at your university. My academic background and research experience have equipped me with the skills and knowledge necessary for advanced study in this position.

My journey began with a strong foundation in Computer Science and Mathematics, leading me to pursue a Master's degree in Computational Mathematics in 2019, following a Bachelor's degree in Information Security in China. For my Master's project, I focused on Generative Adversarial Networks (GANs) of Deep Learning (DL), specifically for handwriting style imitation. In this project, I developed a GANs-based model to replicate individual handwriting styles, focusing on emulating the handwritten Chinese characters of Shiing Shen Chern from a dataset of around 220 characters. This experience provided me with hands-on expertise in GANs, data preprocessing, manuscript analysis, and code replication, culminating in my Master's thesis, *"GANs based Personal Style Imitation of Chinese Handwritten Characters."*

After completing my degree, I joined a research group at Sun Yat-sen University focused on Computer-aided diagnosis, where I worked as a Research Assistant on several impactful projects. These included diagnosing Placenta Accreta Spectrum Disorders, predicting metastasis in Sentinel Axillary Lymph Nodes in breast cancer, and assessing responses to Neoadjuvant Chemotherapy via MRI. Through these projects, I gained further expertise in Python, PyTorch, and TensorFlow, along with experience in manuscript research and scientific writing.

My long-term goal is to build a career in academia, contributing to the meaningful implementation of innovative solutions through the integration of Computer Science and Mathematics. The cutting-edge and interdisciplinary nature of this PhD program, combined with the expertise and accomplishments of the research team, aligns seamlessly with my academic and professional aspirations, as well as my personal interests. This position represents an excellent opportunity to advance toward my goals, and I am eager to join an environment that fosters intellectual rigor, collaboration, and access to the resources needed to achieve my ambitions.

I am confident that I am a strong candidate for this position within your research group. The focus on Machine Learning and Game Theory closely aligns with my interests and expertise. I am particularly passionate about developing AI/ML algorithms and advancing fundamental theories to support research in this area. My interdisciplinary background, programming skills, and research experience uniquely position me to excel in and make meaningful contributions to the challenges and demands of this PhD opportunity.

I am enthusiastic about the opportunity to join your research community and contribute actively while continuing to develop my expertise. Thank you for considering my application, and I look forward to discussing how my background, skills, and goals align with your program.

Sincerely,

Hai Jiang

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