

Letter of Recommendation for Guanqun Liu

We are pleased to provide this letter of recommendation for Guanqun Liu, born on April 5th, 1999.

Mr. Liu completed a mandatory internship from August 15th, 2022 to January 31st, 2023 in the Computational Sensing Group at Stuttgart Laboratory 1 of the Sony Stuttgart Technology Center.

Sony is one of the most innovative companies in the world and drives the development of technology in a global network of research institutions ahead. The Stuttgart Technology Center (STC) was founded in 1989. With the Stuttgart Laboratory 1 (SL1) and the Stuttgart Laboratory 2 (SL2), the STC is a home for two important research and development offices in the network. As part of the European organization of Sony (SEU), the STC plays an important role in the worldwide network of the Research and Development Center (RDC) Sony. Stuttgart Laboratory 1 (SL1) conducts research in areas of Computational Imaging, Perception Systems, RF Communications, Machine Learning, Artificial Intelligence and Speech & Sound Processing.

During his internship at Sony, Mr. Liu worked on the Specular Highlight removal in surgical images for simulation purposes and his tasks included:

- Building up a ground-truth generator composed of a two-stage network: the AttentiveGAN to do initial specular removal, and the LGNet to conduct image inpainting with the result and masks from AttentiveGAN and an analytical color-distributed specular detection method
- Generating a surgical specular-diffuse paired dataset
- Retraining the AttentiveGAN model to obtain a surgical image-targeted specular highlight removal model
- Comparing results between differently trained models

Mr. Liu showed excellent technical and theoretical skills. He completed his tasks in a self-motivated, well-organized and structured manner. His results were very good and always delivered on time. The professional and friendly manner of Mr. Liu towards his colleagues and supervisor made him a valuable team member.

We have no hesitation in recommending Guanqun Liu to any further employer.

We thank Mr. Liu for his good contribution to our department and wish him every success in both his professional and private life.

Stuttgart, February 24th, 2023



Dr. Alexander Gatto
SL1, Senior Manager



Zoltan Facius
SL1, Principal Engineer