

Recommendation for Wonbeen Oh's MMSP 2024 Travel Grant Application

Dear MMSP 2024 Travel Grant Committee,

I am writing to provide my highest recommendation for **Mr. Wonbeen Oh**, a senior undergraduate student in the School of Mechanical Engineering at Yonsei University, for the MMSP 2024 Travel Grant. Despite being an undergraduate, Mr. Oh has demonstrated extraordinary research ability, which is reflected in his recent work on a novel algorithm for 3D data compression.

His paper, titled "**Depth Image Compression Using a Hybrid Framework: Quasi-JPEG and Phase Encoding**", proposes an innovative end-to-end framework for compressing depth images. The key novelty of this work lies in its hybrid use of quasi-JPEG and phase encoding to significantly reduce errors, particularly around discontinuous edges. His algorithm, which employs lossless compression for stair maps and lossy compression for periodic maps, has demonstrated superior performance compared to widely used algorithms like JPEG2000. This breakthrough is timely and essential, given the growing importance of 3D data in areas such as virtual reality and robotics.

This work is his first major research project, and I was so impressed with the quality and potential impact of the work that I provided Mr. Oh with the opportunity to present it at an international conference in the United States. Given that both he and I are based in South Korea, this presentation is a pivotal moment in his academic development. The chance to attend MMSP 2024 will be transformative, offering Mr. Oh valuable exposure to cutting-edge research and fostering connections that will help shape his future as a researcher in academia.

I strongly believe that Mr. Oh's work has the potential to make significant contributions to the field of 3D data compression, and I am confident that with further research, he will emerge as a leader in the field. I wholeheartedly support his application for the MMSP 2024 Travel Grant and encourage you to give him your full consideration.

Thank you for your time and consideration.

Sincerely,

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