

SUBIN KIM

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To The Research Recruiting Team

I am currently a first-year Master's student at the Korea Advanced Institute of Science and Technology under the supervision of Prof. Jinwoo Shin and writing to apply for the research opportunities with Meta.

My research interest lies in *representing complex data signals efficiently* by utilizing coordinate-based neural representations. The current goal of my research agenda is to discover data priors in dynamic scenes and design model architecture for a dynamic 3D video synthesis in a scalable and efficient manner. Before that, I designed a scalable neural video representation that encodes videos in a high-quality while achieving compute-/memory-efficiency. I am also interested in synthesizing realistic 3D scenes in a few-shot setting and editing 3D scenes when signals are parameterized via neural representations, working on related projects with my colleagues.

During my Bachelor's degree, I participated in the following projects to explore how the development of deep learning algorithms can bring beneficial results to society: I worked on a project to develop EVA, an emotion-based interactive video conferencing web application. EVA uses facial detection and emotion recognition models to recognize and classify users' emotions. In addition, I participated in a project to build a knowledge map using the math exercise logs of students; used a knowledge tracking model to predict students' performance, and extract knowledge maps that represent correlations of knowledge concepts implicitly learned by the model.

Given my background and the mission of Meta, I strongly believe I will be able to collaborate with several researchers and make significant contributions to your company. I attached my CV and also provided the contact information for my references.

Sincerely,
Subin Kim

References

- Prof. Jinwoo Shin, Kim Jaechul Graduate School of AI & School of Electrical Engineering, Korea Advanced Institute of Science and Technology, jinwoos@kaist.ac.kr
- Prof. Jaeho Lee, Department of Electrical Engineering & Graduate School of Artificial Intelligence, Pohang University of Science and Technology, jaeho.lee@postech.ac.kr