# SEOKJU CHO

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## RESEARCH INTEREST

Deep Learning, Computer Vision, Correspondence on Video, Dense Visual Correspondence, Open-Vocabulary Recognition

## EDUCATION

**Korea University** Mar. 2022 - Present
Integrated M.S./Ph.D. in Computer Science and Engineering *Seoul, Korea*

**Yonsei University** Mar. 2018 - Feb. 2022
B.S. in Computer Science *Seoul, Korea*

## EXPERIENCE

**Adobe** May 2024 - Aug. 2024 (Expected)
*Research Intern* *San Jose, CA, United States*

- Mentors: Gabriel Huang, Joon-Young Lee

**Adobe** June 2023 - Sep. 2023
*Research Intern* *San Jose, CA, United States*

- Worked on "Revisiting Optical Flow for Long-Range Dense Tracking", presented at CVPR 2024
- Mentors: Joon-Young Lee, Gabriel Huang

## PUBLICATION

**Seokju Cho**, Jiahui Huang, Seungryong Kim, and Joon-Young Lee, "FlowTrack: Revisiting Optical Flow for Long-Range Dense Tracking",
*IEEE Conference on Computer Vision Pattern Recognition* (**CVPR**), 2024.

**Seokju Cho***, Heeseong Shin*, Sunghwan Hong, Anurag Arnab, Paul Hongsuck Seo, and Seungryong Kim, "CAT-Seg: Cost Aggregation for Open-Vocabulary Semantic Segmentation",
*IEEE Conference on Computer Vision Pattern Recognition* (**CVPR**), 2024.

Sunghwan Hong*, **Seokju Cho***, Seungryong Kim, Stephen Lin, "Unifying Feature and Cost Aggregation with Transformers for Dense Correspondence",
*International Conference on Learning Representations* (**ICLR**), 2024.

Jiuhn Song*, Seonghoon Park*, Honggyu An*, **Seokju Cho**, Min-Seop Kwak, Sungjin Cho, and Seungryong Kim, "DäRF: Boosting Radiance Fields from Sparse Inputs with Monocular Depth Adaptation",
*Neural Information Processing Systems* (**NeurIPS**), 2023.

Jihye Park*, Sunwoo Kim*, Soohyun Kim*, **Seokju Cho**, Jaejun Yoo, Youngjung Uh, and Seungryong Kim, "LANIT: Language-Driven Image-to-Image Translation for Unlabeled Data",
*IEEE Conference on Computer Vision Pattern Recognition* (**CVPR**), 2023.

Junyoung Seo*, Gyuseong Lee*, **Seokju Cho**, Jiyoung Lee, Seungryong Kim, "MIDMs: Matching Interleaved Diffusion Models for Exemplar-based Image Translation",
*AAAI Conference on Artificial Intelligence* (**AAAI**), 2023.

**Seokju Cho***, Sunghwan Hong*, Seungryong Kim, "CATs++: Boosting Cost Aggregation with Convolutions and Transformers",
*IEEE Trans. on Pattern Analysis and Machine Intelligence* (**TPAMI**), 2023.

* denotes equal contribution.

Sunghwan Hong, Jisu Nam, **Seokju Cho**, Susung Hong, Sangryul Jeon, Dongbo Min, and Seungryong Kim, "Neural Matching Fields: Implicit Representation of Matching Fields for Visual Correspondence",
*Neural Information Processing Systems* (**NeurIPS**), 2022.

Sunghwan Hong*, **Seokju Cho***, Jisu Nam, Stephen Lin, Seungryong Kim, "Cost Aggregation with 4D Convolutional Swin Transformer for Few-Shot Segmentation",
*European Conference on Computer Vision* (**ECCV**), 2022.

**Seokju Cho***, Sunghwan Hong*, Sangryul Jeon, Yunsung Lee, Kwanghoon Sohn, Seungryong Kim, "CATs: Cost Aggregation Transformers for Visual Correspondence",
*Neural Information Processing Systems* (**NeurIPS**), 2021.

## ACADEMIC SERVICES

**Reviewer**

- 2024 - CVPR
- 2023 - CVPR, NeurIPS

## HONORS

**Ministry of Science and ICT & National IT Industry Promotion Agency** Sep. 2021
***3rd Place Award**, AI Online Competition, Won 300M KRW*

## TECHNICAL STRENGTHS

| | |
|---|---|
| **DL, ML** | PyTorch, Numpy, JAX |
| **Programming** | Python, JavaScript, C/C++ |
| **Web Framework** | React, Node.js, Flask |