

# YOUNGRAE KIM

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## EDUCATION

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<b>Korea Advanced Institute of Science and Technology (KAIST)</b> M.S. in School of Computing Cumulative GPA: 3.66/4.3 (3.62/4.0) Advisor: Prof. Dongman Lee	Mar.2022 - Present
<b>Hongik University</b> B.S. in Computer Engineering Cumulative GPA: 4.01/4.5 (3.73/4.0) (Ranked top 5%) Major GPA: 4.2/4.5 (3.85/4.0) Advisor: Prof. Young Yoon	Mar.2016 - Feb.2022

## RESEARCH INTERESTS

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My research centers on enhancing data efficiency through techniques like few-shot and self-supervised learning. Recently, I'm interested in developing versatile general-purpose models with strong, generalized representations for a wide array of tasks.

**Keywords:** Computer Vision, Data Efficiency, General Purpose Vision Model

## PUBLICATIONS

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**Disentangled Video Representation Learning**  
On going

**MetaWeather: Few-Shot Weather-Degraded Image Restoration via Degradation Pattern Matching**  
**Youngrae Kim\***, Younggeol Cho\*, and Dongman Lee [\[Link\]](#)  
arxiv, AAAI 2024 submitted

**Efficient Reference-based Video Super-Resolution (ERVSR): Single Reference Image Is All You Need**  
**Youngrae Kim\***, Hoonhee Cho\*, Jinsu Lim\*, Minji Lee\*, Ho-Jin Choi, Kuk-Jin Yoon, and Dongman Lee [\[Link\]](#)  
2023 IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)

**Zone-Agnostic Greedy Taxi Dispatch Algorithm Based on Contextual Matching Matrix for Efficient Maximization of Revenue and Profit** [\[Link\]](#)  
**Youngrae Kim**, Young Yoon  
2021 MDPI Electronics

## WORK EXPERIENCES

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<b>Collaborative Distributed System and Network Lab, KAIST</b> Research on efficient and agile AI-centric system in real-world environments	Mar.2022 - Present
<b>Application Platform, Hongik University</b> Research on mobility application system	Jul.2020 - Dec.2021

## PROJECTS

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**Mobility Operating System**  
Research on data-efficient knowledge transfer on image restoration

**Future Mobility Service Operation based on AI**  
Research on taxi dispatching system

## HONORS AND AWARDS

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<b>National Scholarship for Science and Engineering</b>	Mar.2022 - Present
Korea Government	
<b>Best TA Award</b>	Feb.2023
Data Structure (CS206) course, School of Computing, KAIST	
<b>Academic Scholarships</b>	Mar.2016 - Feb.2022
Hongik University	

## TEACHING EXPERIENCE

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<b>Teaching Assistant</b>	Fall 2022
Data Structure (CS206) course, School of Computing, KAIST	
<b>Teaching Assistant</b>	Spring 2022
Operating System (CS330) course, School of Computing, KAIST	

## SKILLS

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<b>Programming Languages</b>	Python, C/C++, JAVA, Verilog
<b>Frameworks</b>	PyTorch, Docker, Triton Inference Server, gRPC

## REFERENCES

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### **Prof. Dongman Lee**

Professor of School of Computing at KAIST, Vice President of KAIST, **Email:** dlee@kaist.ac.kr

### **Dr. Jinwoo Choi**

Assistant Professor of Science and Engineering at Kyung Hee University, **Email:** jinwoochoi@khu.ac.kr

### **Dr. Seunghoon Hong**

Assistant Professor of School of Computing at KAIST, **Email:** seunghoon.hong@kaist.ac.kr

### **Dr. Young Yoon**

Associate Professor of Science and Engineering at Hongik University, **Email:** young.yoon@hongik.ac.kr