



# Taeyoung Kim

AUTONOMOUS DRIVING · ROBOTICS SW ENGINEER

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“Nothing ventured, nothing gained.”

## Summary

This is Taeyoung Kim, who wants to become an autonomous driving or robotics SW engineer. My research interests are Computer Vision and SLAM. I like to take on challenging tasks and I like to grow up with my colleagues around me. That's why I record and share what I did on my Github or Technical Blog. I would like to participate in changing the world with advanced science and technology.

## Research Interests

**Computer Vision** Object Detection, Segmentation, Depth Estimation  
**SLAM** Visual SLAM, Visual Odometry

## Education

### Kwang Woon University

Seoul, S.Korea

B.S. IN SCHOOL OF ROBOTICS

Mar. 2016 - Feb. 2022 (Expected)

- **Current GPA** : 4.07 / 4.50, **Current Major GPA** : 4.50 / 4.50
- **Club**: BARAM (Robotics Academic Group) - [2020 Staff], DAISY (English Conversation Club) - [2019 Spring President]

## Work Experience

### Computer Vision Lab @Korea Univ

Seoul, S.Korea

UNDERGRADUATE LAB INTERN (ADVISOR : PROF. SANGPIL KIM)

Mar. 2021 - Present

- Research on computer vision using an Event camera

### KIST(Korea Institute of Science and Technology)

Seoul, S.Korea

STUDENT INTERN (ADVISOR : DR. KANGGEON KIM)

Sep. 2020 - Feb. 2021

- Research on Monocular Depth Estimation
- Participated in KIST disinfect robot (AI Disinfection Robot) project - [Video]

### Image Process System Lab @Kwang Woon Univ

Seoul, S.Korea

UNDERGRADUATE LAB INTERN (ADVISOR : PROF. DONGGYU SIM)

Mar. 2020 - Aug. 2020

- Research on Image Processing based on Deep learning
- Participated in seminars related to Deep Learning and Image Processing

## Publication

### INTERNATIONAL CONFERENCE

- 2021.3 **UR2021**, Taeyoung Kim, Omer Faruk Ince, JongBeom Baek, Jun-Sik Kim, KangGeon Kim,  
“Denser Monocular SLAM applied Depth Estimation”

IEEE

### DOMESTIC CONFERENCE

- 2020.9 **KSPC2020**, Naseong Kwon, Taeyoung Kim, Subin Kim, Joohyung Byeon, Jongsuk Lee, Donggyu Sim,  
“Luma Mapping with Chroma Scaling based on CNN feature map for VVC subjective quality improvement”

IEIE

## Honors & Awards

### AWARDS

- 2020.11 **Dean's List**, for Academic Excellence

KwangWoon Univ.

- 2020.9 **5th Place on B-track**, Korea Health Datathon 2020

NAVER CLOUD

PLATFORM

- 2019.10 **Dean's List**, for Academic Excellence

KwangWoon Univ.

## HONORS

- 2020 **National Science and Engineering Undergraduate Scholarship**,  
for the students with excellent grades, those who have been recommended by the university
- 2019-2 **Full tuition Scholarship**, for Top seat last semester

*Korea Student Aid  
Foundation  
KwangWoon Univ.*

## Skills

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- Programming** C++/C, Python, JAVA, Matlab
- Framework** Pytorch, Tensorflow, Keras
- DevOps** Git, Docker, ROS
- Languages** Korean, English

## Extracurricular Activity

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### Technical Blogs

*Github blog*

#### WRITERS

*May. 2020 - Present*

- Writing some posts about lecture summary, paper review, some tips for developments.
- To share what I have studied with others and to remember it longer.

### Monocular Depth Estimation with ORB-SLAM2

*BARAM (Robotics Academic Group)*

#### PERSONAL TOY PROJECT

*Sep. 2020 - Nov. 2020*

- I was curious about the performance of the recent depth estimation model.
- I used '**Monocular Depth Estimation with Transfer Learning pretrained MobileNetV2**' model and applied to ORB-SLAM2 also compared with ORB-SLAM2(Monocular mode), ORB-SLAM2(RGB-D mode)
- The source code related to this toy project is on my [\[Github repository\]](#).

### KCCV 2020

*Korea computer vision society*

#### PARTICIPANT

*Aug. 2020*

- Participated to know about the trend of Computer Vision

### Using deep learning for data analysis and image processing (Basic)

*Korea open source software*

#### STUDENTS

*Jul. 2020*

- Studied lectures which is related to the using Deep learning framework(Keras)

### Runner Alarm System based on Deep Learning

*BARAM (Robotics Academic Group)*

#### PERSONAL TOY PROJECT

*Apr. 2020 - Jun. 2020*

- I wanted to distinguish between walking children and running children with an object detection model.
- When children are running for an amount of time, a beep sounds.
- The source code related to this toy project is on my [\[Github repository\]](#).