

# YoungMin Kim

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github : <https://github.com/winston1214>

technical blog : <https://bigdata-analyst.tistory.com/>

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## EDUCATION

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**Incheon National University**, Incheon, Korea

*Mar. 2016 ~ Expected Feb. 2022.09*

College of Information Science, *Computer Science and Engineering*

College of Law, Politics & Public Affairs, *Economics*

Relevant Coursework:

- Linear Algebra
- Data Science
- An Easy Statistics Theory
- Compiler Design
- Mobile Software
- The Application of Basic Statistics with R
- The Basics of Artificial Intelligence (KMOOC)
- Machine Learning (KMOOC)
- Artificial Intelligence and Deep Learning
- BigData
- Probability and Statistics
- Discrete Mathematics
- Public BigData Youth Internship Education
- Image Processing
- Data Structure

## RESEARCH INTERESTS

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- Computer Vision (Image Generation and Object Detection)
- Artificial Intelligence
- Machine Learning & Deep Learning
- BigData Analysis

## WORK EXPERIENCES

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**BOAZ 16<sup>th</sup> member and operating group member (Bigdata Alliance Club)**

**Seoul, Korea**

*Member*

*Jan. 2021 - Jan. 2022*

- Image Generation Paper Review & Application(GAN, CycleGAN)
- Practice Data Analysis with Kaggle Competition

**Advanced Institute of Convergence Technology; AICT(Computer Vision & AI Lab)**

**Suwon, Korea**

*Researcher*

*Sep. 2020 - Aug. 2021*

- Computer Vision Algorithm Development using Pytorch, YOLOv5 Algorithm Tuning
- Analysis of Sensor Data
- UI Development using PyQt5

**2<sup>nd</sup> Public BigData Youth Internship**

**Seoul, Korea**

*Student*

*June. 2020 - Sep. 2020*

- Conducted project regarding Standard Analysis Model using python, QGIS, R
- Conducted project Selection the Optimum Location of Cheongju Roundabout in South Korea

## EXPERIENCES OF PROJECTS

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**Smart Eco Service(People & Car Counting) (Client: Black Stone Belle Forest)**

*Mar. 2021 - Apr. 2021*

- Object Counting using YOLOv5 and Object Tracking using DeepSort and Centroid tracking Algorithm
- Mounting Algorithm to Jetson Nano and Interworking management server(with rockwonit)

**AI learning data for search video of survivors using drones (Management: NIA)**

*Feb. 2021 - Apr. 2021*

- Survivors Detection in 4K images using YOLOv5
- Development of UI Service

**High-performance and high-durable tires for light rail and safety-enhancing health;  
Developing monitoring technology (Management: KAIA)**

Nov. 2020 - Dec. 2020

- Anomaly Detection & Impact Analysis in Tire Health Sensor Data

**Integration of algorithms considering two-way driving of self-driving tram  
(Client: KRRRI)**

Sep. 2020 - Dec. 2020

- Development of Pedestrian Progress Direction Prediction and TTC Prediction Algorithm using YOLOv5 and Optical Flow
- Interworking with algorithms and ROS
- Development of GPS estimation technology for trams

## PAPER

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### • 딥러닝과 Optical Flow 를 활용한 보행자 사고 방지 모델

김영민, 장규진, 배현재, 김영남, 김진평

한국정보과학회(KCC2021) Accepted

### • 딥러닝 객체 탐지와 모션벡터를 활용한 트램 충돌 방지 모델

김영민, 안현욱, 장규진, 김진평

한국정보처리학회(KIPS) decision in process

### • 딥러닝 기반 교량 구조물 다중 손상유형 탐지 시스템

김영남, 장규진, 김영민, 배현재, 김진평

한국정보과학회(KCC2021) Accepted

### • 드론과 딥러닝을 활용한 조난자 탐지 모델

배현재, 김영민, 김영남, 장규진, 김진평

한국정보과학회(KCC2021) Accepted

### • 사회적 거리 두기를 위한 스테레오 영상과 스켈레톤 정보기반 객체 간 거리 추정 방법

장규진, 배현재, 김영민, 김영남, 김진평

한국정보과학회(KCC2021) Accepted

## Patents

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### • Apparatus and Method for Analyzing data, Apparatus and Method for Predicting Abnormality, Computer program

(10-2020-0186453) Patent Share 10%

### • Electronic Apparatus and Method for Searching Distress, Unnamed Aerial Vehicle, Computer program

(Expected to apply ) Patent Share 10%

### • Method And Apparatus for Avoiding Collision between Vehicle and Object, Computer Program

(Expected to apply) Patent Share 10%

## SKILLS & Certificate

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### Skills

Python, Pytorch, Ubuntu, Nvidia MiniPC(Basic), ROS(Basic), R(Basic)

### Certificate

ADsP, SQLD, 정보처리기능사