

# Kevin Tirta Wijaya

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## Education

### Korea Advanced Institute of Science and Technology (KAIST)

M.S. in Robotics (GPA 3.98 / 4.30)

Thesis: Memory & Runtime-Efficient Deep Learning-based Perception with Prototypical Encoder

Daejeon, South Korea

Mar 2021 - Feb 2023

### Bandung Institute of Technology

B.Sc. in Electrical Engineering (GPA 3.42 / 4.00)

Final Project: Vision-based Parking Assist System for Reverse Bay Parking Maneuver Recommendation

Bandung, Indonesia

Aug. 2016 - Sep. 2020

## Skills & Interests

**Research Interests** Robust, Efficient, and Explainable Machine Perception

**Technical Skills** Python, C/C++, MATLAB, PyTorch, OpenCV, OpenPCDet, ROS, Git, LaTeX

**Languages** Indonesian (Indonesian Citizen), English

## Experience

### AVE Lab @ KAIST

Research Assistant

- Created novel datasets for LiDAR lane detection (K-Lane) and 4D Radar 3D object detection (K-Radar).
- Developed SwiftPCN, a pair of point cloud shape completion networks with competitive completion accuracy and an order of magnitude lower inference latency and numbers of parameters compared with previous state-of-the-art networks.

Daejeon, South Korea

Mar 2021 - Feb 2023

### ZebraX

IoT Research Intern

- Designed and implemented a low-cost volume occupancy estimation system for logistic trucks based on monocular depth estimation.

Tangerang, Indonesia

Sep 2020 - Mar 2021

## Publications

### K-Lane: Lidar Lane Dataset and Benchmark for Urban Roads and Highways

D.H. Paek, S.H. Kong, **K.T. Wijaya**. *CVPR Workshop on Autonomous Driving*

[project page] [paper]

2022

### K-Radar: 4D Radar Object Detection for Autonomous Driving in Various Weather Conditions

D.H. Paek, S.H. Kong, **K.T. Wijaya**. *NeurIPS Datasets & Benchmarks*

[project page] [paper]

2022

### Multiview Attention for 3D Object Detection in Lidar Point Cloud

**K.T. Wijaya**, D.H. Paek, S.H. Kong. *International Conference on Artificial Intelligence in Information and Communication*

[paper]

2022

### Row-wise Lidar Lane Detection Network with Lane Correlation Refinement

D.H. Paek, **K.T. Wijaya**, S.H. Kong. *IEEE International Conference on Intelligent Transportation Systems (ITSC)*

[paper]

2022

### Vision-Based Parking Assist System with Bird-Eye Surround Vision for Reverse Bay Parking Maneuver Recommendation

**K.T. Wijaya**, L.Y. Bharoto, A. Purwanto, E.Y. Syamsuddin. *International Electronics Symposium*

[paper]

2020

## Academic Services & Awards

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**Reviewer**, IEEE T-ITS, NeurIPS Datasets & Benchmarks 2022, CVPR 2023

**Teaching Assistant**, MO560 Principles and Applications of Kalman Filter

**KAIST Scholarship**, Full tuition support and stipends for the duration of MS study.

## Leadership Experience

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### URPA ITB

President (Elected)

*Bandung, Indonesia*

*Jan 2019 - Jan 2020*

- Led a student organization with over 250 members from several academic departments.
- Organized a two-day national swimming competition with about 200 athletes participating.