Kevin Tirta Wijaya

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Education

Korea Advanced Institute of Science and Technology (KAIST)   *Daejeon, South Korea*
M.S. in Robotics (GPA 3.98 / 4.30)   *Mar 2021 - Feb 2023*
Thesis: Memory & Runtime-Efficient Deep Learning-based Perception with Prototypical Encoder

Bandung Institute of Technology   *Bandung, Indonesia*
B.Sc. in Electrical Engineering (GPA 3.42 / 4.00)   *Aug. 2016 - Sep. 2020*
Final Project: Vision-based Parking Assist System for Reverse Bay Parking Maneuver Recommendation

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   *Daejeon, South Korea*
Research Assistant   *Mar 2021 - Feb 2023*
- 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.

ZebraX   *Tangerang, Indonesia*
IoT Research Intern   *Sep 2020 - Mar 2021*
- Designed and implemented a low-cost volume occupancy estimation system for logistic trucks based on monocular depth estimation.

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*   *2022*
[project page]   [paper]

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*   *2022*
[project page]   [paper]

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*   *2022*
[paper]

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)*   *2022*
[paper]

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*   *2020*
[paper]

Academic Services & Awards

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

URPA ITB   *Bandung, Indonesia*
President (Elected)   *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.