Kyung-Min Jin

CONTACT INFORMATION

LG Electornics
Multimodal Task
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Scholar: Google Scholar

RESEARCH INTERESTS

Designing a novel framework in computer vision domain: In particular, I conducted research on pose estimation architectures based on transformers combined with convolutional neural networks. After joining LG, I worked on implementing body pose estimation technology to edge devices and achieving state-of-the-art performance for hand pose estimation. I also moved the team to multimodal tasks and worked on developing multimodal models.

EDUCATION

Korea University Seoul, Korea

Department of Artificial Intelligence Sep. 2021 - Feb. 2023

- M.S. in Artificial Intelligence
- Thesis: Kinematic Continuity-aware Masked Hierarchical Attention for Pose Estimation in Videos
- Adviser: Seong-Whan Lee
- Laboratory: PRML Laboratory
- Area of Study: Computer Vision
- GPA: 4.50 / 4.50 (100 / 100)

College of Informatics Mar. 2016 - Aug. 2021

- B.S. in Computer Science & Engineering
  GPA: 4.02 / 4.50 (94.5 / 100)
- B.S. in Artificial Intelligence
  GPA: 4.17 / 4.50 (96.2 / 100)
- GPA: 3.99 / 4.50 (94.2 / 100)

PUBLICATIONS

[1] Tae-Kyung Kang, Gun-Hee Lee, Woo-Jeoung Nam, Hyun-Woo Kim, **Kyung-Min Jin**, and Seong-Whan Lee, "Calibrated Attention Masking Network for Temporal Action Localization," Under Review.

[2] **Kyung-Min Jin**, Gun-Hee Lee, Woo-Jeoung Nam, Tae-Kyung Kang, Hyun-Woo Kim, and Seong-Whan Lee, "Masked Kinematic Correlation with Hierarchical Attention for Pose Estimation," in *Neural Netw. **(NN)***, 2024.

[3] Hyun-Woo Kim, Gun-Hee Lee, Woo-Jeoung Nam, **Kyung-Min Jin**, Tae-Kyung Kang, Geon-Jun Yang, and Seong-Whan Lee, "MHCanonNet: "Multi-Hypothesis Canonical Lifting Network for Self-supervised 3D Human Pose Estimation in the wild Video," in *Pattern Recognit. **(PR)***, 2024.

[4] **Kyung-Min Jin**, Byoung-Sung Lim, Gun-Hee Lee, Tae-Kyung Kang, and Seong-Whan Lee, "Kinematic-aware Hierarchical Attention Network for Human Pose Estimation in Videos," in *Proc. IEEE Winter Conf. Appl. Comput. Vis. **(WACV)***, 2023. **(Oral)**

[5] Tae-Kyung Kang, Gun-Hee Lee, **Kyung-Min Jin**, and Seong-Whan Lee, "Action-aware Masking Network with Group-based Attention for Temporal Action Localization," in *Proc. IEEE Winter Conf. Appl. Comput. Vis. **(WACV)***, 2023. **(Oral)**

[6] **Kyung-Min Jin**, Gun-Hee Lee, and Seong-Whan Lee, "OTPose: Occlusion-Aware Transformer for Pose Estimation in Sparsely-Labeled Videos," in *Proc. IEEE Int. Conf. Syst. Man Cybern. **(SMC)***, 2022. **(Oral)**

Grants and Honors

[1] Awarded LG Electronics R&D Scholarships — Sep. 2022

[2] Awarded Grand Prize Miso AI Model Development Challenge 2021, Infant Behavior Video Data hosted by Ministry of Science and ICT — Dec. 2021

[3] Encouragement Prize smart campus dataton 2020 in Korea University — Jul. 2020

Academic Service

Reviewer of **CVPR** (IEEE Conference on Computer Vision and Pattern Recognition) — 2024 - 2025

Research Experience

Voice caddie — Seoul, Korea

Golf swing pose, distance assistant device — May. 2020 - Nov. 2020

- Golf pose estimation model, action localization, and annotation tool
- Pytorch, C++, and OpenCV

Industrial Experience

LG Electronics — Seoul, Korea

Artificial intelligence research center

- Multimodal Task - Artificial intelligence researcher — Jul. 2023 - present
- Cognitive Vision TP - Artificial intelligence researcher — Mar. 2023 - Jul. 2023

Deer corporation — Seoul, Korea

Electric kick board startup — Jul. 2020 - Feb. 2021

- Frontend developer
- React, Typescript, Next.js, and React Native

Klue — Seoul, Korea

Course evaluation service for Korea University — Jul. 2019 - present

- Frontend developer
- React, Typescript, Redux, and MobX

Teaching Experience

Teaching Assistant — Korea University

- Teaching Assistant for COSE213-02: Data Structure — Sep. 2022 - Dec. 2022

Instructor — Inflearn

- Online 2D Pose estimation course — Mar. 2023

Certificate

Human Resources Development Service of Korea — Seoul, Korea

- Engineer Information Processing — Nov. 2021

Skills

Computer Programming

- Python, JavaScript, and C

Deep Learning Frameworks

- PyTorch, Tensorflow, and Keras

Languages

- Korean (mother tongue)
- English (TOEIC Speaking - Lv. 6 / OPIc - IM1 / TOEIC - 830)