YEIN PARK

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EDUCATION

Sogang University Seoul, South Korea — Mar 2020 ▸ Aug 2025

Combined M.S./Ph.D. Program in Electronic Engineering

GPA: 3.75/4.5

Advisor: Prof. Suk-Ju Kang

Lab: Vision & Display Systems Lab.

Research Interests: Time-Series Analysis; Deep Learning; Remaining Useful Life Prediction; Prognostics and Health Management

Dongduk Women's University Seoul, South Korea — Mar 2014 ▸ Aug 2018

B.S in Department of Computer Science

GPA: 3.49/4.5

PUBLICATIONS

International Journal

- **"Query-Vector-Focused Recurrent Attention for Remaining Useful Life Prediction", *IEEE Transactions on Reliability*, 2025.**
- "Luminance Compensation for Stretchable Displays Using Deep Visual Feature-Optimized Gaussian-Weighted Kernels", *Journal of the Society for Information Display*, 2025.
- "Self-Supervised Anomaly Segmentation for Surface Defect Inspection in Display Panels", *Journal of the Society for Information Display*, 2025.
- **"Pseudo-Label-Vector-Guided Parallel Attention Network for Remaining Useful Life Prediction", *IEEE Transactions on Industrial Informatics*, 2023.**

International Conference

- "Deformation-Aware Luminance Compensation Using Gaussian-Weighted Kernels for Stretchable Displays", *SID Symposium Digest of Technical Papers*, 2025.
- "Remaining Useful Life Prediction through Meaningful Feature Extraction Using SHAP", *International Meeting on Information Display (IMID)*, 2023.
- **"Selective TransHDR: Transformer-Based Selective HDR Imaging Using Ghost Region Mask", *European Conference on Computer Vision (ECCV)*, 2022.**
- **"Parallel Attention Network using Vector with High Correlation with Label for Remaining Useful Life Estimation", *AAAI 2022 Workshop on AI for Design and Manufacturing (ADAM)*, 2022.**
- "Anomaly segmentation network using self-supervised learning", *AAAI 2022 Workshop on AI for Design and Manufacturing (ADAM)*, 2022.
- "Deep Learning-Based Image Enhancement for HDR Imaging", *SID Symposium Digest of Technical Papers*, 2022.
- "Voice Pathology Detection using Small Imbalanced Dataset", *International Conference on Next Generation Computing (ICNGC)*, 2022.

- "Attention-based bidirectional LSTM-CNN model for remaining useful life estimation", *IEEE international symposium on circuits and systems (ISCAS)*, 2021.
- "HDR Image Generator Focused on Saturated Region Restoration with Contextual Loss", *International SoC Design Conference (ISOCC)*, 2020.
- "Deep Learning-based HDR Generator Focused On Saturated Area Restoration", *International Meeting on Information Display (IMID)*, 2020.

Domestic Journal & Conference

- "Transformer 기반의 HDR 영상 복원 알고리즘을 통한 효과적인 Ghost Artifact 제거", *한국방송미디어공학회 5월 특집호*, 2024.
- "시계열 데이터 기반의 이상치 검출을 위한 설명 가능한 그래프 신경망 구조 개발", *대한전자공학회 논문지*, 2024.
- "Wavelet 변환을 이용한 그래프 기반 시계열 데이터 이상치 검출", *대한전자공학회 제33회 신호처리합동학술대회*, 2023.
- "딥러닝 기반 Deraining 기법 비교 및 연구 동향", *대한임베디드공학지*, 2021.

RESEARCH PROJECTS

Display Luminance and Color Compensation Algorithm Development | *DB GlobalChip*

Nov 2023 ▸ Present

- Algorithm development for optimal compensation curves to correct luminance and color distortion in displays

Stretchable AMLED Core Material/Device Technology | *National Research Foundation of Korea*

Jan 2024 ▸ Dec 2024

- Image distortion and resolution degradation compensation under 30% bidirectional stretch in irregular conditions

Explainable AI for Predictive Maintenance in Manufacturing Equipment | *LG Display*

Oct 2022 ▸ Sep 2023

- Development of fault-type-specific explainable AI models for remaining useful life estimation and anomaly detection

Advanced Industrial AI Algorithms | *LG Display*

Mar 2021 ▸ Feb 2022

- Development of semi-supervised anomaly detection and reinforcement learning-based optimization algorithms

AI-based Time Series Forecasting Algorithms | *LG Display*

Mar 2020 ▸ Feb 2021

- Development of neural network models for OLED and equipment lifetime prediction using multivariate time series

Research & Industry Experience

Exchange Research Student
in ***Carnegie Mellon University, USA*** Jan 2022 ▸ Jul 2022

- Participated in the Sogang-CMU Global AI Talent Program, including an intensive AI field training and on-site research activities.

Research Intern
in ***ETRI (Electronics and Telecommunications Research Institute), Korea*** Jul 2018 ▸ Aug 2018

- Developed custom embedded Linux systems using Yocto Project for ADAS in autonomous vehicles.

Awards and Honors

3rd Place Awarded at the 2nd Editage Early Career Researcher Awards 2025

Best Paper Award Awarded by Samsung Electronics DS for Industry-Academia Collaboration 2023

Gold Prize Awarded at the Samsung Display Industry-Academia Paper Competition 2023

Top Graduate Student Award Awarded by the Sogang RICH Engineering Research Awards 2023

Best Paper Award Awarded at the 2022 Qualcomm Innovation Award Korea 2022

Encouragement Award Awarded at the 2021 Qualcomm Innovation Award Korea 2021

Skills

Programming Language Python
Machine Learning Library PyTorch, OpenCV, Numpy, Pandas, Matplotlib etc.