CHANMIN PARK

Seoul, Republic of Korea

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SUMMARY

As a computer vision AI Research Engineer with three years of experience, I apply AI to solve diverse problems across various domains, including 2D/3D images, tablur, and videos, while also enjoying participating in competitions.

EXPERIENCE

PoscoDX Inc.   July 2024 – Present
AI Research Engineer   *Pangyo, Korea*
- 3D AI & Sensor Fusion: Working as a 3D AI engineer integrating LiDAR, ToF, and RGB sensors to build fused perception systems and environment understanding models for steel production sites.
- AI Systems Engineering (PLC/L2 Service): Designing and implementing AI-driven PLC/L2-style service systems that connect AI models with real-time factory control, monitoring, and automated pipeline execution.
- Domain Adaptation & Retrieval Research: Conducting data-centric research on domain adaptation, clustering, and retrieval to improve cross-line and cross-facility generalization of AI models.
- Steel Defect Detection & MLOps: Developed SDD models and built MLOps Level 1 with Continuous Training (CT) using Dataiku for real-time quality improvement.

VUNO Inc.   May 2021 – July 2024
AI Research Enginner, Vision team   *Seoul, Korea*
- 2D object detection: Developed a model to detect cell objects in gigapixel pathology images, optimizing it for fast inference.
- SW Productization: Obtained KFDA certification for a Deep Learning Algorithm and scheduled evaluations involving over 20 labelers, resulting in the acquisition of two patent certifications.
- 3D object detection : Engineered a model for tiny nodule detection in 3D image domains, employing self and semi-supervised learning methods.
- Multi-Task Learning: Participated in an international competition by Radboudumc, achieving 3rd place on Leaderboard1 with segmentation and detection ensembled, and 1st place on Leaderboard2 for score prediction.
- Machine Learning Engineering: Experience in model deployment and packaging using Torch script, CI, Docker, and Mlflow.

FastCampus Inc.   Sep 2023 – Dec 2023
Part time instructor   *Seoul, Korea*
- I conducted sessions on concepts, recent papers, and practical exercises in medical image and computer vision.

EDUCATION

Ulsan National Institute of Science and Technology(UNIST)   Mar 2019 – Mar 2021
M.S in Computer Science   *Ulsan , S.Korea*
- Cumulative GPA 3.28/4.3, Scholarships: Academic excellence for 4 semesters (2019-2021)
- **Thesis**: Neuron segmentation using incomplete and noisy labels via adaptive learning with structure priors
- **Domestic patent**: Brain Neural Network Structure Image Processing System, Brain Neural Network Structure Image Processing Method, and a computer-readable storage medium;

Inje University   Mar. 2014 – Aug. 2018
B.S in Bio Medical Enginnering   *Kimhae , S.Korea*
- Cumulative GPA 3.89/4.5, Scholarships: Academic excellence for 8 semesters (2014-2018)
- **Gold Prize**: Inje Creative Comprehensive Design Contest; **Bronze Prize**: 2017 Engineering Festival Competition; **Awarded**: Good Capstone Design contes & Gyeongnam area preliminary for the creative comprehensive design contest;

PUBLICATION & COMPETITIONS

UnderReview
- Cho, H., Park, C., Kim, J., & Kim, W. H. (2024). CNA-TTA: Clean and Noisy Region Aware Feature Learning within Clusters for Online-Offline Test-Time Adaptation. arXiv preprint arXiv:2401.14587. Paper Link
- Dong, H., Jo, D., Cho, H., Park, C., & Kim, W. H. (2024). Joint-Embedding Predictive Architecture for Self-Supervised Learning of Mask Classification Architecture.

International & Domastic Conference
- Park, Chanmin, et al. "Neuron segmentation using incomplete and noisy labels via adaptive learning with structure priors." 2021 IEEE 18th International Symposium on Biomedical Imaging (ISBI). IEEE, 2021.Paper Link Code
- "Development of a KFDA-certified Deep Learning Algorithm for Quantitative Analysis of Ki-67 Immunohistochemical Stains", 대한병리학회

Award & Competition
- Video recognition: Google - Isolated Sign Language Recognition
- Segmentation & Ranking & Detection: Tumor-InfiltratinG lymphocytes in breast cancER (TIGER) Code Link
- Instance segmentation: Achieved 1st place in Track B of the 2020 HealthHub Datathon using Unet
- Object detection: Lesion Detection AI Competition using ensembled YOLOv5 Code Link
- Tabular classification: Ranked in the Top 8% in the Autonomous Driving Sensor Antenna Performance Prediction AI Competition

AI Technology Excellence Award – PoscoDX   Sep. 2025
- Recognized for significant contributions to automating steelmaking processes by applying computer vision and deep learning technologies, improving quality, safety, and operational efficiency in production lines.

OTHER SKILLS

Skills: Python, Linux, Docker, MongoDB, GitHub, VS Code, Google Cloud Platform, Pytorch, Pytorch ligthing, Tensorflow, Mlflow, AimStack
Project & Communite: Work beta reviewer of "캐글 메달리스트가 알려주는 캐글 노하우" ; Join with Pseudo lab member and make segmentation papers review page
Domestic Patent

Method for analyzing for medical image (Application number : 1020210139898)

Method For Analyzing Medical Image based on deep learning (Application number : 1020210139897)

Brain Neural Network Structure Image Processing System, Brain Neural Network Structure Image Processing Method, and a computer-readable storage medium : (Registration number : 1020210139898)