Sungduk Cho

AI Engineer @ OncoVisio

newhigen@gmail.com · sungd.uk

LinkedIn · GitHub · Google Scholar

Summary

First AI engineer at OncoVisio, building an agentic AI platform and ML pipelines from training to deployment. Previously, I spent nearly 5 years at VUNO taking chest X-ray and lung CT finding models from research to product, and built the training and evaluation pipelines and internal tools my team reuses.

Experience

AI Engineer, OncoVisio — Nov 2026 – **Present**

Building an agentic AI platform, ML pipelines, and bioimage analysis models

ML Engineer, VUNO — (4 yrs 9 mos) Mar 2022 – Nov 2026

Chest X-ray Team — VUNO Med®-Chest X-ray™ — Sep 2024 – Nov 2026

- Sole owner of a new finding model, from label-criteria redefinition to product integration
- Built reusable DB-based training and evaluation pipelines with standardized metrics
- Designed team DB schema and data versioning, keeping existing code intact through migration
- Established code review practices (300+ PRs reviewed) and cut CI test time by about 67%
- Built internal tools with AI coding agents (ops console, file explorer, PR-review skill)

Lung CT Team — VUNO Med®-LungCT AI™ — Nov 2022 – Aug 2024

- Built shared 3D lung imaging pipelines to eliminate duplicate code across models
- Co-redesigned a false-positive-reduction (FPR) model with up to 4.5x faster CPU inference
- Co-introduced MongoDB for team data integrity

Digital Oncology Team — Digital Pathology R&D — Mar 2022 – Oct 2022

- 1st place in TIGER Challenge survival analysis track (open-sourced inference pipeline, TIL analysis) [J1]
- Designed modular reusable library for whole slide image (WSI) processing

Graduate Researcher, HVCL @ Korea Univ. — (2 yrs 9 mos) Jun 2019 – Feb 2022

Interactive Segmentation Research

- Deep learning models and interactive tools to reduce physician annotation effort [C1]

Organized International Medical Data Challenges (2 Editions)

- Web tool design, implementation, and qualitative evaluation for 3 hospitals [J2]
- Built and operated a digital platform for sharing large-scale pathology datasets [J3]

Skills

ML & Serving: Python, PyTorch, ONNX, OpenVINO
Data & MLOps: MongoDB, Airflow, MLflow, W&B
DevOps & CI/CD: Docker, Git, GitHub Actions
AI Tools & Agents: Claude Code, Codex, Gemini

Education

M.E. in CS, Korea University — 2020 – 2022

B.S. in CS, UNIST — 2015 – 2020

Awards

1st Place, International Pathology Image Challenge (TIGER Challenge) — Radboud University 2022

1st Place, Korea University Startup Competition — Seoul Metropolitan Government, Seongbuk-gu, SH Corporation, Korea University 2021

1st Place, Dental Panoramic X-ray AI Challenge — Healthhub Datathon Track B, Seoul National University Dental Hospital 2020

Publications

Journals

[J1] Analysis of computational tumor-infiltrating lymphocytes in breast cancer from the results of the TIGER challenge 2025
TIGER Challenge Consortium. Nature Communications

[J2] PAIP 2020: Microsatellite instability prediction in colorectal cancer 2023
Kyungmo Kim*, Kyoungbun Lee*, **Sungduk Cho***, Dong Un Kang*, Seongkeun Park, et al. Medical Image Analysis

[J3] Development and operation of a digital platform for sharing pathology image data 2021
Yunsook Kang, Yoo Jung Kim, Seongkeun Park, Gun Ro, Choyeon Hong, Hyungjoon Jang, **Sungduk Cho**, et al. BMC Medical Informatics and Decision Making

Conferences

[C1] DeepScribble: Interactive Pathology Image Segmentation Using Deep Neural Networks with Scribbles 2021
Sungduk Cho, Hyungjoon Jang, Jing Wei Tan, Won-Ki Jeong. IEEE International Symposium on Biomedical Imaging (ISBI)

Preprint

[P1] Joint-Embedding Predictive Architecture for Self-Supervised Learning of Mask Classification Architecture 2024
Dong-Hee Kim, **Sungduk Cho**, Hyeonwoo Cho, Chanmin Park, Jinyoung Kim, Won Hwa Kim. arXiv

* Equal contribution

Languages

English — OPIc Advanced Low Jul 2025