Seonghui Min

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Research Interests

Deep Learning, Computer Vision, Generative AI, Label-Efficient Learning, Medical Image Analysis

Education

M.S. in Computer Science and Engineering, **Korea University** *Mar. 2022 - Feb. 2024*
Advisor: Prof. Won-Ki Jeong
- GPA: 4.11/4.5

B.S. in Biomedical Engineering, **Korea University** *Mar. 2018 - Feb. 2022*
- GPA: 3.94/4.5

Publications

Conference Proceedings (***** equal contribution)

[C-03] **Seonghui Min***, Hyun-Jic Oh*, Won-Ki Jeong "Co-synthesis of Histopathology Nuclei Image-Label Pairs using a Context-Conditioned Joint Diffusion Model", *European Conference on Computer Vision* (**ECCV**), 2024.

[C-02] SeungKyu Kim, Hyun-Jic Oh, **Seonghui Min**, Won-Ki Jeong "Evaluation and improvement of Segment Anything Model for interactive histopathology image segmentation", **MICCAI 2023 Workshop** MedAGI (**MICCAIW**), 2023.

[C-01] **Seonghui Min**, Won-Ki Jeong "CGAM: click-guided attention module for interactive pathology image segmentation via backpropagating refinement", *IEEE International Symposium on Biomedical Imaging* (**ISBI**), 2023.

Journal Publications (***** equal contribution)

[J-02] Hyun-Jic Oh*, **Seonghui Min***, Won-Ki Jeong "S2L-CM: Scribble-supervised Nuclei Segmentation in Histopathology Images using Contrastive Regularization and Pixel-Level Multiple Instance Learning", **Under Review**.

[J-01] **Seonghui Min**, Won-Ki Jeong "ZoomISEG: Interactive Multi-Scale Fusion for Histopathology Whole Slide Image Segmentation", *Journal of the Korea Computer Graphics Society* (**KCGS**), 2023.

Research Experience

Research Intern in **HVCL, Korea University** *Sep. 2021 - Feb. 2022*
Advisor: Prof. Won-Ki Jeong
- Interactive Tumor Region Segmentation in Histopathology Images

Research Intern in **BREIN Lab, Korea University** *Mar. 2021 - Aug. 2021*
Advisor: Prof. Joon Kyung Seong
- Regional Amyloid Positivity Prediction Using Brain MRI in Alzheimer's Disease

Teaching

Special Lecture for Computer Science (COSE490) *Fall 2022*
- Teaching Assistant at Korea University

Data Structure (COSE213) *Spring 2022*
- Teaching Assistant at Korea University

Awards

3rd Place Award, Campus CEO Start-Up Competition *Fall 2020*
Team Leader
- Food Detection and Recognition for Inflammatory Bowel Disease Management

Academic Activities

BEAT, Student Research Group at Korea University *Fall 2020 - Spring 2021*
Group Member
- Deep Learning Theories and Research Paper Seminars

Skills

Programming: Python, PyTorch, OpenCV, Scikit-learn, Matlab

Languages: Fluent in English, Native in Korean

References

Prof. Won-Ki Jeong
Professor, Korea University
Relationship: MS advisor
Email: wkjeong@korea.ac.kr