Eun-Seo Cho

Ph.D. Student, Korea Advanced Institute of Science and Technology(KAIST)

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BioSketch

He received his Bachelor's degree in Biomedical Engineering at Hanyang University and his Master's degree in Electrical Engineering at Korea Advanced Institute of Science and Technology (KAIST). Currently, He is a Ph.D. student in School of Electrical Engineering at KAIST and involved in Neuro-Instrumentation and Computational Analysis Lab (NICA Lab). His research interests are designing optical instrumentation for brain signals and analyzing brain activity data obtained from optical imaging modality by using computational methods.

Education

Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea
Ph.D. Student in Electrical Engineering Mar. 2021 - Present
Advisor: Prof. Young-Gyu Yoon

Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea
Master of Science in Electrical Engineering Feb. 2019 - Feb. 2021
Advisor: Prof. Young-Gyu Yoon

Hanyang University Seoul, Korea
Bachelor of Science in Biomedical Engineering Mar. 2015 - Aug. 2018
First rank, Summa Cum Laude

Experience

Neuro-Instrumentation and Computational Analysis Laboratory (NICA Lab) , KAIST

Research Assistant Feb. 2019 - Present

He currently works as a member of *Neuro-Instrumentation and Computational Analysis Laboratory (NICA Lab)* at KAIST. His research focus is on developing optical and computational tools for brain activity.

Computational Neuroimage Analysis Laboratory (CNA Lab), Hanyang University

Undergraduate Intern Mar. 2017 - Dec. 2017

He worked as an undergraduate intern of *Computational Neuroimage Analysis Laboratory (CNA Lab)* at Hanyang University. He analyzed T1-MRI and DWI of metastatic brain images and preprocessed fMRI data of autism patients.

Clinical Cognitive Neuroscience Center(CCNC), Seoul National University

Visiting Student Jan. 2017 - Feb. 2017

He participated in a visiting student program of *Clinical Cognitive Neuroscience Center(CCNC)* at Seoul National University. He was an assistant of researchers and did ERP experiment, IQ test, Python & MATLAB scriptings.

Honors and Awards

Hanyang University Graduate Award(Summa Cum Laude)	2018
Hanyang University Alumni Association President Award	2018
Hanyang University Biomedical Engineering Capstone Design Award(3rd Prize)	2017
Hanyang University Social Services Award	2017
Hanyang University Department of Biomedical Engineering Fund Scholarship	2017
Joongdong High School Honorary Teachers Certificate of Appreciation	2016, 2017
Hanyang-Brain Scholarship(Scholarship of Academic Achievement) (Semester: 2015 Fall, 2016 Spring, 2017 Spring)	2015, 2016, 2017

Publication

1. Sung Jun Ahn, Mijin Park, Sungkyu Bang, **Eunseo Cho**, Sung Gwe Ahn, Sang Hyun Suh, Jong-Min Lee*, Apparent diffusion coefficient histogram in breast cancer brain metastases may predict their biological subtype and progression, Scientific Reports, Vol.8(1), 9947, July 2018.

Research Interest

- Optical instrumentation design
- Optical imaging of brain activity
- Neuroscience
- Machine learning

Research & Design Experience

- He analyzed the diffusion weighted image (DWI) of metastatic brain images to investigate the relationship between DWI parameters of brain metastases (BMs) and biological markers of

breast cancer. The main contribution of this study was the brain image post-processing and analysis(=Regions of interests (ROIs) segmentation, Co-registration, Apparent diffusion coefficient (ADC) histogram analysis), statistical analysis(=Two-sample t-test). [*Scientific Reports* 2018]

Programming skill

- **MATLAB:** Pre-Advanced level
- **Python:** Intermediate level
- **C & C++:** Intermediate level

  Github: https://github.com/bienseo

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- LG Innovation Hall(N24), Room #4103, KAIST, 291 Daehak-ro, Yuseong-gu, Daejeon, 34141, Republic of Korea

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