


GEUNHYEOK YU

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SUMMARY

Talented student with industrious and systematic approach to learning information. Open and clear worker with disciplined execution and methodical nature. Extensive knowledge of research and software skills.

RESEARCH INTERESTS

- Computer Vision
- Artificial Intelligence
- Representation Learning
- Model Compression

EDUCATION

Mar. 2024 – Present	Kyung Hee University, Republic of Korea Ph.D. course in Department of Software Convergence Artificial Intelligence and Robotics Lab. supervised by Prof. Hyoseok Hwang	Yongin-si, Korea
Mar. 2022 – Feb. 2024	Kyung Hee University, Republic of Korea M.S. course in Department of Software Convergence Artificial Intelligence and Robotics Lab. supervised by Prof. Hyoseok Hwang	Yongin-si, Korea
Mar. 2018 – Feb. 2022	Gachon University, Republic of Korea B.S. course in Department of Software	Seongnam-si, Korea

EXPERIENCE

Mar. 2022 – Present	Ph.D./M.S. Student Researcher • "Real-Time Automated Solubility Screening Method Using Deep Neural Networks with Handcrafted Features" • "Generative Perturbation Network for Universal Adversarial Attacks on Brain-Computer Interfaces" • "D-BADGE: Decision-based Adversarial Batch Attack with Directional Gradient Estimation" • "A2XP: Towards Private Domain Generalization" PyTorch / Deep Learning / Probabilistics / Linear Algebra	AIRLab, Kyung Hee University, Korea
Mar. 2022 – Present	Teaching Assistant • Operating System (CSE301-01, Spring Sem. 2022.) • Robot Programming (SWCON331-00, Fall Sem. 2022.) • Web/Python Programming (SWCON104-01, Spring & Fall Sem. 2023.) • Reinforcement Learning (SWCON495-00, Fall Sem. 2024.)	Dept. of Software Convergence, Kyung Hee University, Korea
Jul. 2020 – Aug. 2020	Internship Student • CAD Development Team • 3D Model Visualization C++ / VTK / Linear Algebra / Geometry	DDS, Seoul, Korea
Mar. 2020 – Dec. 2020	Teaching Assistant • Object-oriented Programming (09805003-4, Spring Sem. 2020.) • Software Implementation Patterns (11494005, Fall Sem. 2020.)	Dept. of Software, Gachon University, Korea

PROJECTS

Mar. 2022 – Jul. 2022	Development of solubility measurement technology using computer vision Hubidity Detection, Machine Learning, Computer Vision	(주) 디스메카, SAIT Corp.
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PUBLICATIONS

INTERNATIONAL JOURNAL

Nov. 2023	Generative Perturbation Network for Universal Adversarial Attacks on Brain-Computer Interfaces IEEE Journal of Biomedical and Health Informatics, Volume: 27, Issue: 11, 2023, [IF:7.76] Jiyoung Jung, HeeJoon Moon, Geunhyeok Yu , Hyoseok Hwang <i>Index Term – Adversarial attack, brain computer interfaces, EEG classification, universal adversarial perturbation</i>
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Jun. 2023

Real-Time Automated Solubility Screening Method Using Deep Neural Networks with Handcrafted Features

MDPI Sensors 2023 23(12) [IF:3.847]

Minwoo Jeon, **Geunhyeok Yu**, Hyundo Choi, Gahee Kim, Hyoseok Hwang

Keywords – Solubility measurement, automated solubility screening, handcrafted feature, deep neural networks, support vector machine

INTERNATIONAL CONFERENCE

Jun. 2024

A2XP: Towards Private Domain Generalization

IEEE/CVF CVPR, 2024

Geunhyeok Yu, Hyoseok Hwang

SKILLS

Software

- OpenCV
- PyTorch
- Git

Research

- Scientific Methodology
- Analytic Thinking
- Teamwork and Collaboration

LANGUAGES

English ● ● ● ● ●

Korean native