

# GEUNHYEOK YU

Ph.D. Student

ghyeok.com

+82 32 201 5570

geunhyeok@khu.ac.kr

Yongin-si, Republic of Korea

Google Scholar

github.com/nda111

/in/ghyeok-vision

## 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	<b>Kyung Hee University, Republic of Korea</b> 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	<b>Kyung Hee University, Republic of Korea</b> 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	<b>Gachon University, Republic of Korea</b> B.S. course in Department of Software	Seongnam-si, Korea

## EXPERIENCE

Sep. 2024 – Mar. 2025	<b>Internship Student</b> • Research on knowledge distillation for vision foundation model compression. Deep Learning / Knowledge Distillation / Representation Learning	Naver Labs Corp., Korea
Mar. 2022 – Present	<b>Ph.D./M.S. Student Researcher</b> • "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	<b>Teaching Assistant</b> • Web/Python Programming (SWCON10400, Fall Sem. 2025.) • Game Graphics Programming (SWCON31100, Spring Sem. 2025.) • Reinforcement Learning (SWCON495-00, Fall Sem. 2024.) • Web/Python Programming (SWCON104-01, Spring & Fall Sem. 2023.) • Robot Programming (SWCON331-00, Fall Sem. 2022.) • Operating System (CSE301-01, Spring Sem. 2022.)	Dept. of Software Convergence, Kyung Hee University, Korea
Jul. 2020 – Aug. 2020	<b>Internship Student</b> • CAD Development Team • 3D Model Visualization C++ / VTK / Linear Algebra / Geometry	DDS, Seoul, Korea
Mar. 2020 – Dec. 2020	<b>Teaching Assistant</b> • Object-oriented Programming (O9805003-4, Spring Sem. 2020.) • Software Implementation Patterns (11494005, Fall Sem. 2020.)	Dept. of Software, Gachon University, Korea

## PROJECTS

Sep. 2024 – Mar. 2025	<b>Foundation model compression via knowledge distillation for mobile robots</b> Vision Foundation Model, Knowledge Distillation, Model Compression, Representation Learning	Naver Labs Corp.
Mar. 2022 – Jul. 2022	<b>Development of solubility measurement technology using computer vision</b> Hubidity Detection, Machine Learning, Computer Vision	(주) 디스메카, SAIT Corp.

PUBLICATIONS

---

INTERNATIONAL CONFERENCE

Apr. 2026      **SiNGER: A Clearer Voice Distills Vision Transformers Further**  
ICLR 2026  
**Geunhyeok Yu**, Sunjae Jeong, Yoonyoung Choi, Jaeseung Kim, and Hyoseok Hwang

Jun. 2024      **A2XP: Towards Private Domain Generalization**  
IEEE/CVF CVPR 2024  
**Geunhyeok Yu** and Hyoseok Hwang

INTERNATIONAL JOURNAL

Aug. 2025      **TRIDENT: Text-Free Data Augmentation Using Image Embedding Decomposition for Domain Generalization**  
IEEE Access, Vol. 13, pp. 139816-139830, 2025. [IF: 3.6]  
Yoonyoung Choi, **Geunhyeok Yu**, Hyoseok Hwang  
*Keywords – Generative domain generalization, image synthesis, CLIP, latent decomposition*

May. 2024      **D-BADGE: Decision-based Adversarial Batch Attack with Directional Gradient Estimation**  
IEEE Access, Vol. 12, pp. 80770-80780, 2024. [IF: 3.9]  
**Geunhyeok Yu**, Minwoo Jeon, Hyoseok Hwang  
*Keywords – Decision-based adversarial attack, universal adversarial attack, deep neural networks*

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  
*Index Term – Adversarial attack, brain computer interfaces, EEG classification, universal adversarial perturbation*

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*

SKILLS

---

- Software**
- OpenCV
  - PyTorch
  - Git
- Research**
- Scientific Methodology
  - Analytic Thinking
  - Teamwork and Collaboration

LANGUAGES

---

- English**      ● ● ● ● ●
- Korean**      native