

# Heeyang Jung

ROBOTICS · DEEP LEARNING · REINFORCEMENT LEARNING

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"Opportunity did not knock until I built a door."

#### **Summary**.

This is Heeyang Jung, who want to be a ML Engineer focused on Robotics Control & Optimization using RL&ML. I am interested in Robotic, ML, reinforcement learning. I want to be an engineer who combines theory and practice. I want to be beneficial to people by exploring how the knowledge I learned can be used in the field or how it can be used.

#### Research Interests

**Deep Learning** generative model, unsupervised learning

**Human Robot Interaction** face detection, face alignment, 3d object detection

#### **Education**

**KwangWoon University** 

Seoul, Korea

Mar. 2020 - Feb. 2024(Expected)

**B.S. IN SCHOOL OF ROBOTICS** 

- 5.5. IN SCHOOL OF ROBOTICS
- Current GPA: 4.33/4.50, Current Major GPA: 4.25/4.50
- Club: BARAM Robotics(Robotics Academic Group) [2022 Staff], Mar.2021-Present

### Work Experience \_\_\_\_\_

#### **Ubiquitous Lab @ KwangWoon Univ**

Seoul,Korea

Undergraduate Lab Intern(Advisor: Prof. Yonghoon Choi)

Jan. 2022 - Jun. 2022

- Solving algorithm problems(BOJ, Programmers)
- Design deep Learning pipeline

**Petnow Inc**Undergraduate R&D Division Intern(Advisor: CTO. Daehyun Pak)

Seoul,Korea Jun. 2022 - Present

- Improve biometric model named DNNet(Dog Nose Network)
- Improve backbone of DNNet
- Apply suitable loss function to DNNet

#### Skills\_

**Programming** Python, C/C++, Matlab

**Framework** Pytorch, Tensorflow **DevOps** Ros. Git

Languages Korean, English

# **Extracurricular Activity**

#### **Neural Radiance Generative Adversarial Network for Photrealistic Space Design**

Kwangwoon University

Mar .2023 - Jul. 2023

CAPSTONE

- Using [instant-NGP]
- Using [CycleGAN]
- Extended style transfer from 2D images to 3D objects
- (The source code will be released.)

#### **Door Lock System using deep metric learning**

PERSONAL TOY PROJECT

Sep. 2022 - Dec. 2022

Baram robotics

• Improving original ResNet(Pytorch) / revising downsampling architecture

• (The source code will be released.)

JUNE 21, 2023 HEEYANG JUNG · RÉSUMÉ

#### Reinforcement learning-based robot arm

Baram robotics

Personal Toy Project Apr. 2022 - Jul. 2022

- Implementing the environment using gym(from openAl)
- Connecting the agent program to the Robot arm in ROS
- The source code related to this toy project is on my [Github repository]

#### Game learning agent based reinforcement learning

Baram robotics

Sep. 2021 - Oct. 2021

PERSONAL TOY PROJECT

- Implementing the environment required for reinforcement learning
- Apply DQN algorithm to agent
- The source code related to this toy project is on my [Github repository]

#### **First Runner Project**

1ST STUDENT

- Studying Autonomous racing(F1tenth)
- Making AEB(automatic emergency braking) code
- Making wall following code

#### TresC3(Venture Inc), Korea Univ

Oct. 2021 - Feb. 2022

## **Educational Activities**

#### **AI Genius Academy Mentoring**

TEACHING ASSISTANT

• Project Assistant with Arduino and Raspberry Pi

Support students to experience Al and proceed with the project through a Teachable Machine

Organized by Micro School, TresC3

Nov. 2021

#### Samsung Electronics App Development Mentoring

TEACHING ASSISTANT

• MIT App Inventor training and Project Assistant

Organized by Micro School, TresC3

Jan. 2022