# Sehee Kim

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#### **EDUCATION**

# **Jeonbuk National University**

Jeonju, S. Korea

Bachelor of Computer Science and Business Administration

2016 - Present

- GPA (Overall): 3.93/4.5; GPA (CS Major): 4.23/4.5
- Relevant Modules:

Calculus, Linear Algebra, Probability, Machine Learning, C++, Data Structure, Algorithms

# **PUBLICATIONS**

# Accuracy improvement of deep learning gender classification model using retail customer tracking information

**KCC 2022** 

Sehee Kim, Tae-Woong Yoo, Minwoo Kim, Il-Seok Oh

Currently under review

# RESEARCH EXPERIENCE

# **JBNU Computer Vision Lab**

Jeonju, S. Korea 2021 - Present

Student Researcher

- Participated in a research project on gender and age prediction for real-time customer information analysis tracking retail store customers,
- Researched gender classification and experimented YingYang-Net and modified model architecture to perform,
- Analyzed journal articles and past research on 2D human pose estimation and used it to experiment HigherHRNet, HRNet models to test weaknesses,
- Modified HigherHRNet architecture using the transformer model to overcome large-scale performance degradation from an increase in image resolution,
- Implemented CNN models such as ResNet, VGGNet, AlexNet upon in-depth research of past experiment analyses and database,
- Optimized CNN models, MLP, and SLP using MNIST and CIFAR-100 datasets through adjustments of hyperparameters and modifications,
- Participated and organized weekly seminars to review research analyses and lab output.

Tilon Seoul, S. Korea Dec. 2020 - Feb. 2021

Research Intern

- Participated in research of PE file and Hooking methods upon an in-depth analysis of Windows Internals,
- Successfully pitched new ideas about security file for the company-wide project and applied for patent,
- Attended daily conferences with senior researchers to present lab experiment data,
- Studied to address various research questions in accordance with contexts and to reach conclusions.

#### PROJECT EXPERIENCE

#### **Autonomous Driving Projects**

May 2022 - Present

Conducted research on visual SLAM and devised an autonomous driving experiment for Kookmin University Autonomous Driving Competition,

- Executed a close study on motion planning and reinforcement learning to apply on the autonomous driving experiment,
- Organized a recruitment process to gather team members to participate in the project.

# **Jeonbuk National University Al Project Group**

Sep. - Dec. 2020

- Joined the Al project group and studied deep learning solving the Linear regression, Logistic regression problems,
- Implemented YOLOv5 using PyTorch and tested on real-time video,
- Presented the results of a project in front of professors.

#### **WORK EXPERIENCE**

# **Jeonbuk National University Office of International Affairs**

Jeonju, S. Korea

Academic Assistance Manager

Mar. - Jun. 2020, Sep. - Dec. 2021

- Guided international students in the computer science department and the business school to comprehend lecture materials,
- Provided translation services for Korean materials by creating English course materials for several major courses and electives,
- Assisted new-coming international students by participating in the orientation week, guiding them through school facilities and aiding course selection processes.

#### **LEADERSHIP & EXTRACURRICULAR ACTIVITIES**

#### **KB Kookmin Bank Software Hackathon**

Seoul, S. Korea Dec. 2021

4th Place Award, Team Leader

- Placed 4th in the KB Kookmin Bank Hackathon as a team leader.
- Organized team members' tasks based on an analysis of strengths and weaknesses of each member,
- Enthusiastically collaborated with team members to develop an application and design UI,
- Researched waste classification and developed recyclable café cup classification model reusing trained ResNet18 model.
- Created an application to distinguish recyclable cups based on the analysis of labels using AI technology,
- Presented a viable implementation case of the software upon following disposal policies for cafes and restaurants in South Korea,
- Developed a server with Plask and linked application and models in AWS,
- Demonstrated a presentation for the final competition as the speaker.

#### **Konkuk University Medical Hackathon**

Seoul, S. Korea Oct. 2021

4th Place Award, Team Leader

- Placed 4th in the Konkuk University Medical Hackathon as a team leader,
- Researched medical Al models used in the hospital industry,
- Designated responsibilities for each team members based on their strengths and weaknesses,
- Conducted in-depth research about OCR and trained OCR model provided by NAVER CLOVA by using handwriting datasets,
- Created an AI-based application that can be utilized in medical settings by nurses and other personnel,
- Collected authorized hospital charts to test the technicalities of the application,
- Demonstrated a presentation on behalf of the team members.

# **ADDITIONAL SKILLS**

Certificate

Microsoft Azure Al-900 (verify.certiport.com: RHdy-4wBm)

Certificate of Lecture of Deep Learning 1-4 from NAVER (Certificate ID. A20220513-325882)