

INTRODUCTION OF MAJOR

PANN VAND ET



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Hello,

I'm Pann Vandet

A Growing Researcher

I am a passionate researcher who graduated with a Bachelor's degree in Computer Science and Information Technology at Phnom Penh International University. After completing my undergraduate studies, I gained valuable experience by working in web development field for three years. However, my thirst for knowledge and desire to delve deeper into the field led me to pursue a Master's degree. In pursuit of academic excellence, I enrolled in a renowned institution, Jeonbuk National University (JBNU), in South Korea. Currently, I am a machine learning research fellowship at National Institute of Animal Science in Korea.



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Education

2012-2015

Phnom Penh International University (PPIU)

- Online shopping web application
 - Technology: OpenCart
 - Language used: PHP-based, MySQL
- Mini-store management system
 - Language used: VB.net, SQL server

2019-2022

Jeonbuk National University (JBNU)

- Graduation thesis: A Novel Attention-Based Network for Masked Face Recognition
- Built and registered “MaskedFaceGenerator” software
- Joined two projects:
 - Built the Gilsam web application system
 - Built Object detection in CCTV
 - Built Smart Scale mobile application system
 - Built a Palm and Masked Face recognition system



Awards

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2025.05

The Korean Society of Animal Environmental Science and Technology

- Outstanding Academic Paper Award

2018.08

National Institute for International Education

- One year for Korean study (S.Korea)
- Two years for a mater degree (S.Korea)

2015.04

Webcash Software Scholarship

- Six months for professional programming courses (java programing web based programming)

2015.03

Outstanding student awards

- Outstanding student at Phnom Penh International University

Participations

International & Domestic Conferences

- KSAEST 2025: Evaluation of Generalization Performance of Pig Vocalization Classification Models under Different Environmental Conditions (Poster)
- KSAEST 2024: Efficient Pig Sounds Classification Using a Lightweight CNN Model (Poster)
- 6th CIGR 2024: Enhancing Pig Vocalization and Non-Vocalization Classification with DCNN and Data Augmentation (Poster)
- KSAST 2023.10: Improvement of Pig Vocal and Non-Vocal Classification in Smart Livestock Farming Using Deep Learning (Poster)
- KSAST 2023.07: Comparative Analysis of Audio Feature Extraction Methods for Pig Vocalization Classification Using Deep Learning (Poster)
- ACK 2021.11: Modern Face Recognition using New Masked Face Dataset Generated by Deep Learning (Paper)
- KCC 2020.07: Moving Object Detection in Video Surveillance Based on Background Subtraction and Yolov3 (Paper)

Journal SCI(E)

- Computers and Electronics in Agriculture: Robustness of CNN-Based Model Assessment for Pig Vocalization Classification Across Diverse Acoustic Environments (Under review)
- Animals (2024.07): DCNN for Pig Vocalization and Non-Vocalization Classification: Evaluate Model Robustness with New Data
- Applied Science (2022.05): Effective Attention-Based Mechanism for Masked Face Recognition

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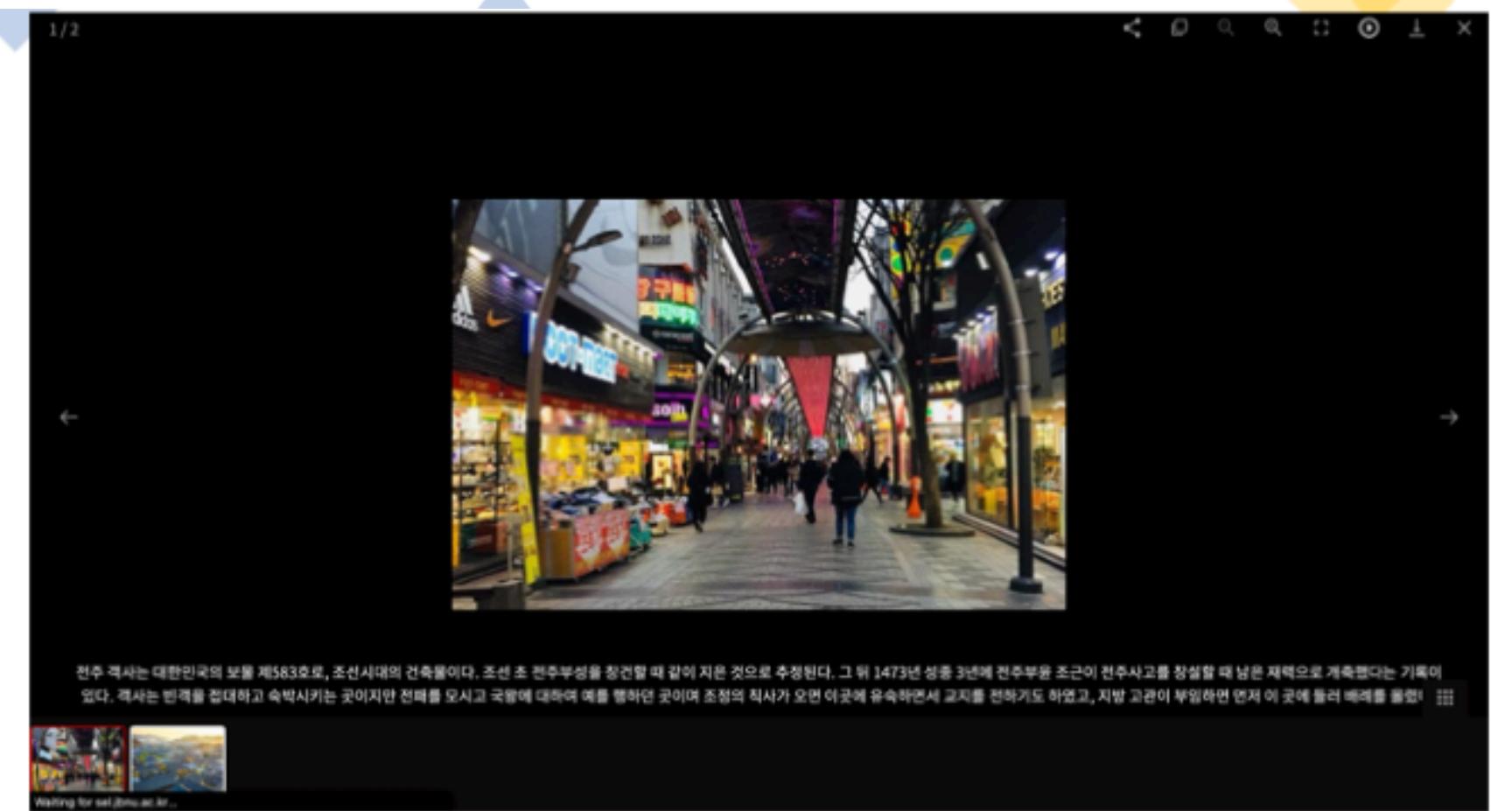
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Project 1

Project Information

This web application project uses HTML, SASS, and Javascript for front-end development and Python with the Flask framework for back-end development. It was built to manage historical places in Jeonju, South Korea.

- Project name: Gilsam
- Category: Web Design and Development
- Company: Software engineering lab (JINU)
- Project date: January, 2020
- Backend: Python, Flask framework
- Frontend: HTML, CSS, SCSS (Sass), JavaScript, Bootstrap, etc.



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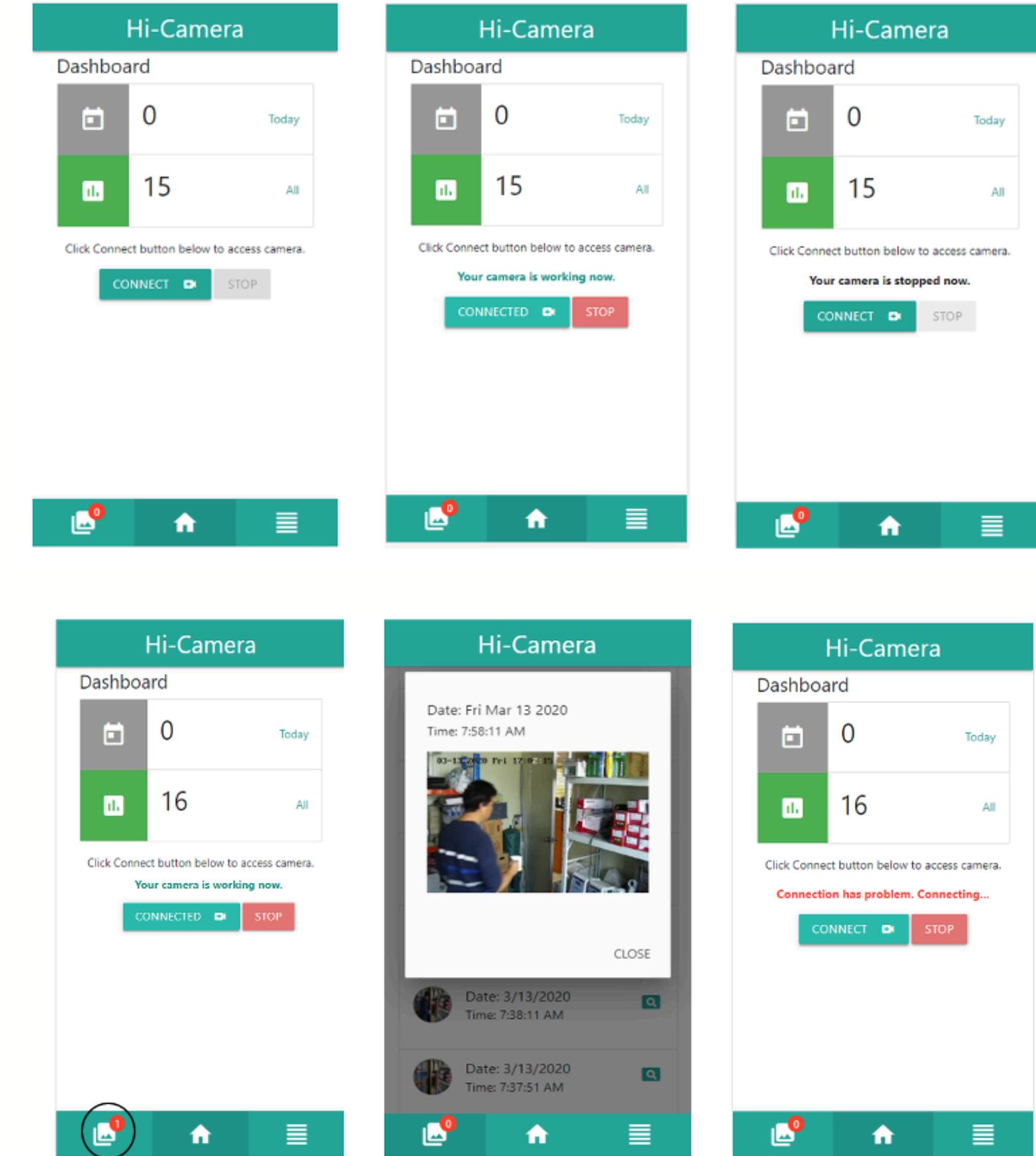
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Project 2

Project Information

This web and mobile application project was built to detect moving objects in warehouse CCTV.

- Project's name: Detect moving objects in the warehouse (CCTV)
- Back-end: Python and Flask framework
- Front-end: Hybrid mobile app PhoneGap
- Read real-time video: OpenCV library



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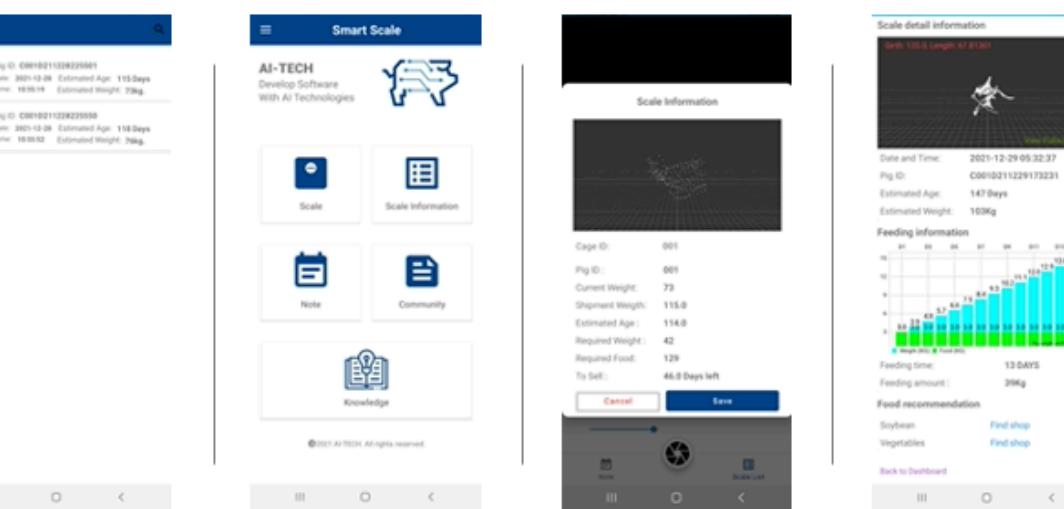
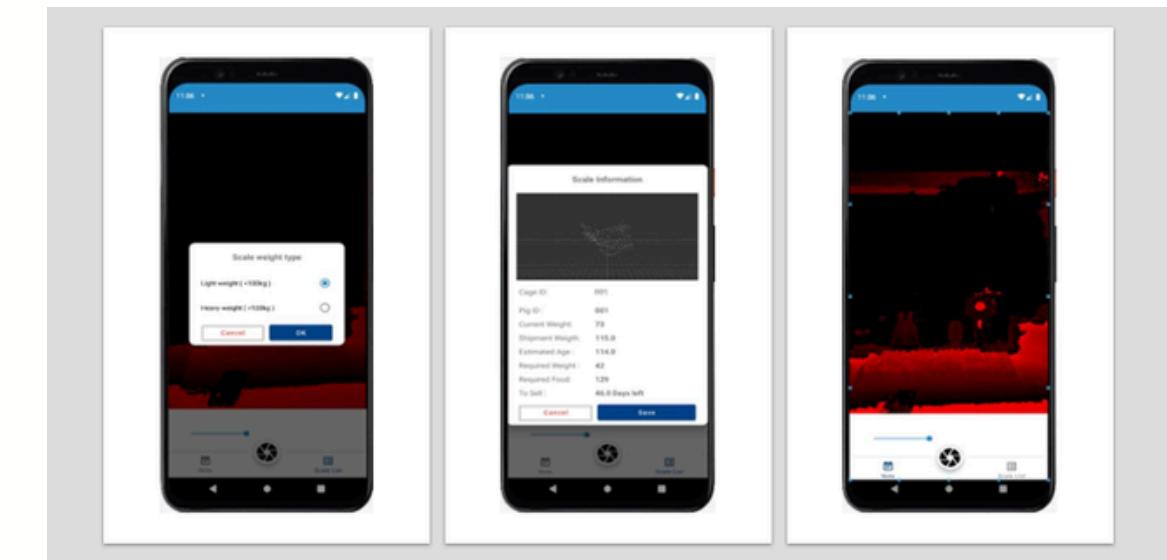
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Project 3

Project Information

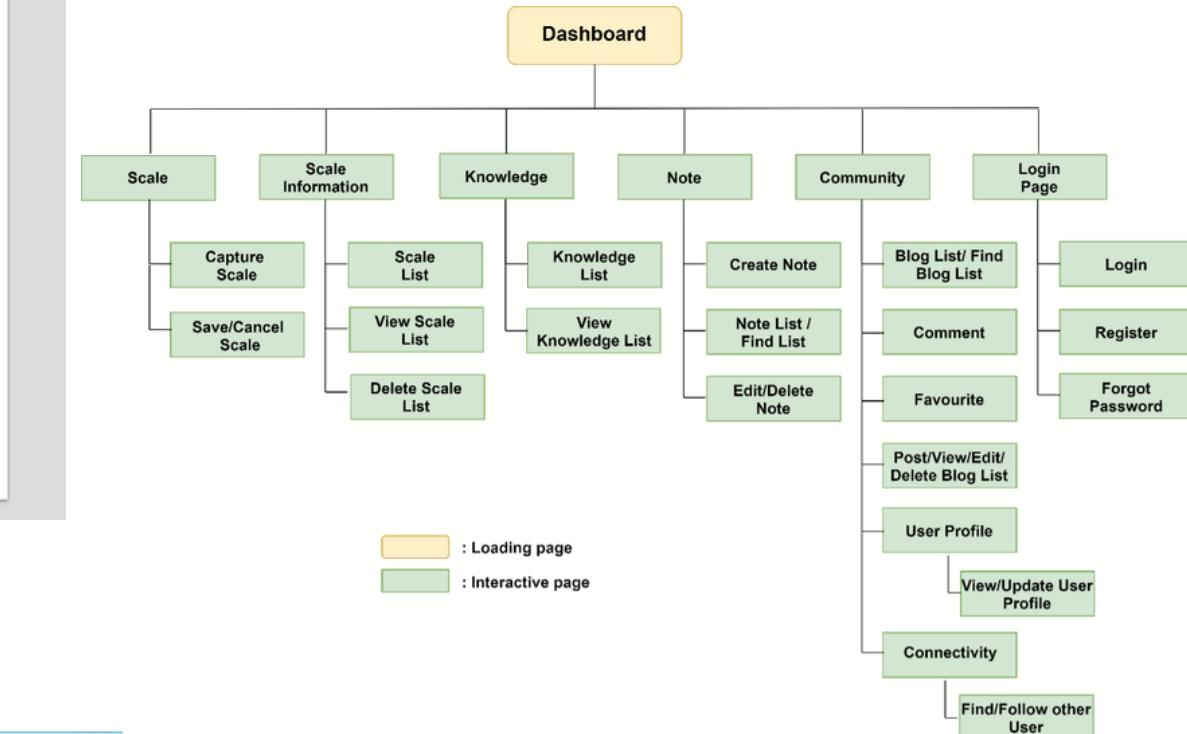
This is a mobile application project using 3D point cloud technology. This application is built to help the pigs farmer on pig scale measurement.

- Project name: Smart Scale
- Category: Mobile App Design
- Company: AI-Tech
- Project date: 01 March, 2020
- Programming language: Java for Android
- Device: Samsung Galaxy Ultra 20
- Scaling: Machine learning algorithm



Mobile application interface

Application architecture



Data collection

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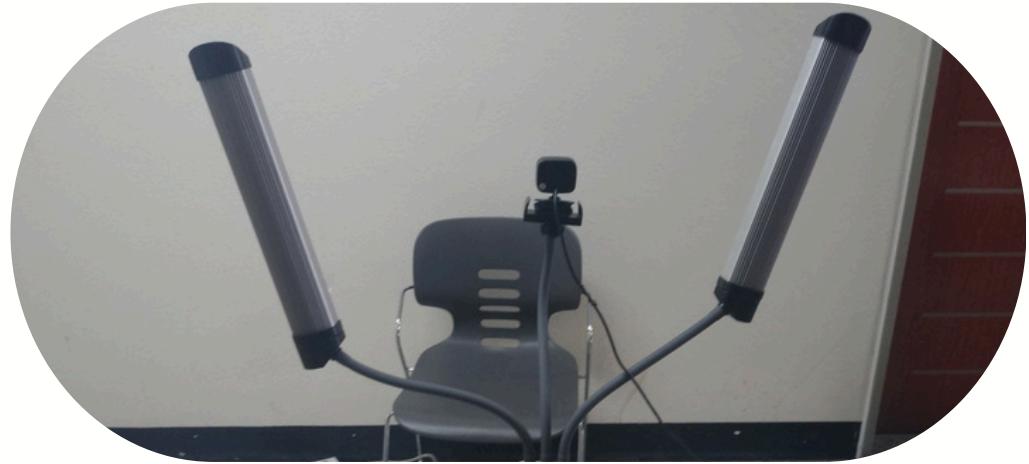
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Project 4

Project Information

To build Palm Vein and Masked Face recognition systems, real human palm vein and face with mask and without mask dataset were collected.

- Project name: Palm Vein and Mased Face recognition systems
- Category: Desktop application
- Company: Jeonbuk National University (JBNU)
- Project date: 2021-2022
- Programming languages: C, Python, Machine learning framework (TensorFlow)
- Device: webcam, palm vein capture camera, light, notebooks,



Face and Palm vein data collection (JBNU)

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Project 5

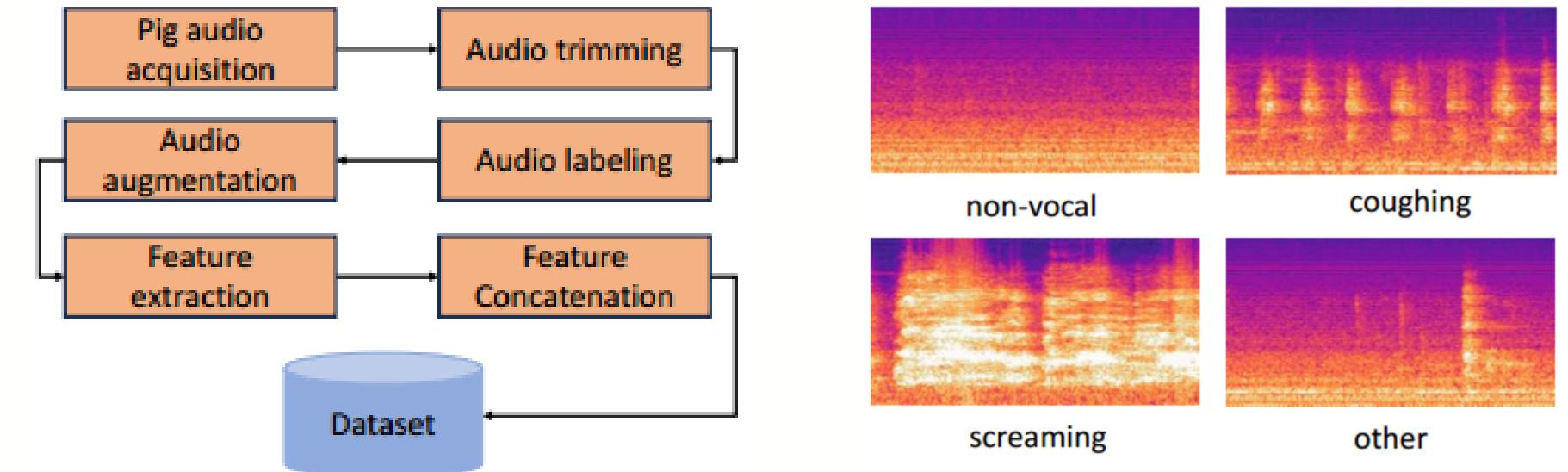
Project Information

Developing a robustness model and integrating it into embedded system to detect in real-time in pig farm

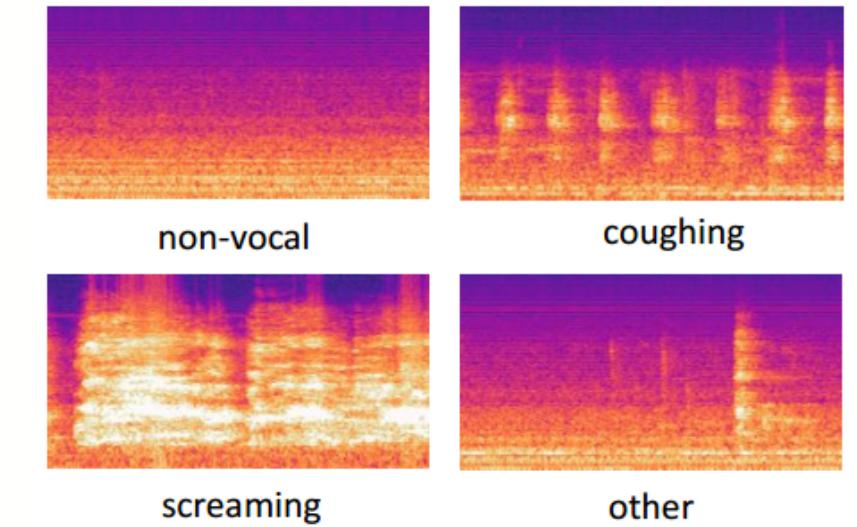
- Project name: “Research of image-based automatic pig pregnancy judgment and abnormal behavior detection technology”
- Category: Desktop application
- Company: National Institute of Animal Science
- Project date: 2023-2025
- Programming languages: Python, Machine learning framework (TensorFlow),



Audio recording devices installation



Data preparation diagram



Pig sound visualization

Others

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Work Experiences

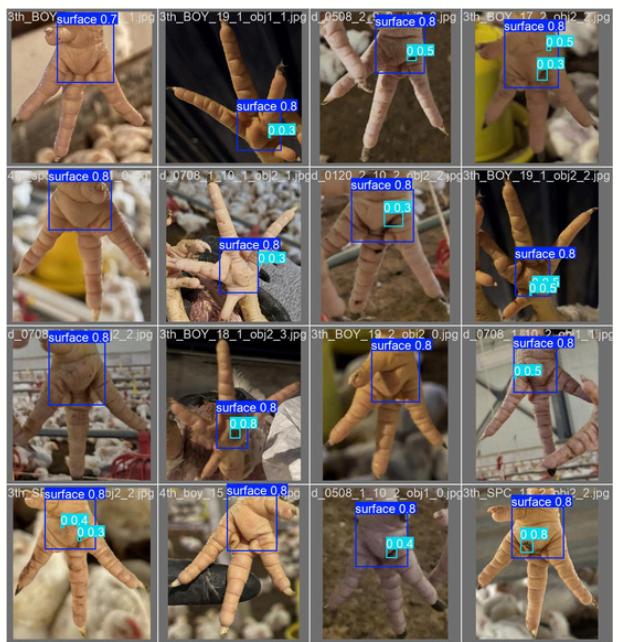
- Present: Machine Learning Researcher at National Institute of Animal Science, South Korea
 - Working on a project titled “Research of image-based automatic pig pregnancy judgment and abnormal behavior detection technology”
 - Joining a poultry FootPad Dermatitis (FPD) detection and classification
- 2018-2016: WEB DEVELOPER (Placepass company, Cambodia)
- 2015-2016: FRONT-END DEVELOPER (PhnomList company, Cambodia)

Skills

- Python, Java, PHP, C/C++
- Tensorflow, Keras, Pytorch
- Numpy, Pandas, Matplotlib
- OpenCV, YOLO
- HTML, CSS, JavaScript, Jquery, Database
- CMS, WORDPRESS, Rest API
- JIRA, TRELLO, GIT, GITHUB
- Docker container

Activities and Hobbies

- Workshop: 아태 역사문화도시 청년 컨퍼런스 (우수상)
- Workshop: 한국어 쓰기 대회 (우수상)
- Volunteer: 푸른 도시 환경운동본부에서 주관하는 “환경정화”라는 자원봉사 프로그램에 참여.
- Volunteer: 9 번 헌혈을 했음.
- Sports: Football, Volleyball, Table Tennis, Badminton, etc



Poultry FPD detection using Yolo11



PhnomList : Job listing platform in Cambodia

Web application



Thank you

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