Youngjoon Park

Personal Information

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Blacksburg, VA 24060

EDUCATION

Virginia Tech

Blacksburg, Virginia 24061

Expected Graduation - Fall 2025

B.S., Computer Engineering, Machine Learning

In Major GPA : 3.29 / 4.00

Course Work

- Data Structures and Algorithms
- Principles of Computer Architecture
- Machine Learning
- Artificial Intelligence and Engineering Application
- Digital Image Processing

SKILLS

- Programing Skills: C / C++ / Python / Pytorch
- Languages: Korean / English

PROJECTS

Home Audio System - Integrated Design Class Project - Fall 2023

- Developed a functional home audio system with integrated graphic equalizer, class-D amplifier, and OLED display for audio visualization.
- Designed and constructed 3-band constant-Q filters for real-time audio frequency adjustments, incorporating potentiometer-based gain control.
- Programmed an Arduino microcontroller to manage signal processing, user interface design, and real-time spectrogram display.
- Built a high-efficiency class-D amplifier using pulse-width modulation (PWM) techniques, optimizing power consumption and performance.
- Conducted extensive simulations and hands-on circuits for validation of design quality.

AI-Enhanced Cattle Weight Estimation Using Image Processing - Fall 2024

- https://vtece-smartfarm.github.io/index.html -

- Engaging in research focused on estimating cattle weight using depth image data and image processing techniques.
- Utilizing AI and machine learning approaches, including data processing, feature extraction, and model training, to enhance livestock analysis.
- Collaborating in the development of deep learning models, such as neural networks, to improve the accuracy of weight estimation from depth images.
- Gaining proficiency in depth imaging technologies, with a focus on data acquisition and processing for agricultural applications.
- Contributing to the design and implementation of research methodologies aimed at ensuring precise data analysis and effective communication of research outcomes.