Hi there 👋

I received the M.Sc. degree in 2021 from Yonsei University, Seoul, Korea. My research interest include computer vision on mobile devices. Such as gaze tracking, and face recognition. But now I'm really into server development.
My CV

Libuv Game Server

`#linux #libuv #C++ #C# #Unity`

- **LibuvGameServer**
  - On Ubuntu 18.04, using libuv for TCP connection.
  - Based on libuv's event loop, Network IO is single threaded.
  - **[Bug]** Segmentation Fault after continuous Disconnection and Connection.
- **LibuvGameServerClients**
  - Dummy Client is based on C# .NET framework
  - Client is based on Unity
  - Demo avaiable here

Realtime Pose Estimation with Unity 3D Avatar

`#mediapipe #blazepose #Unity #3D #C# #Android`

- **BlazePoseWithUnity**
  - Only has Demo and brief description of project due to confidential rights

Face Detection & Recognition

`#Face Recognition #Android #Firebase ML Kit #TensorFlow 2.0 #TensorFlow Lite #Java #Python`

- **JHFace**

  - Face recognition training & testing framework implemented with TensorFlow 2, Keras
  - Supported backbones: **MobileNet, MobileNetV2, InceptionResNetV2, InceptionV3, ResNet50, ResNet50V2, ResNet101V2, MnasNetA1, MnasNetB1, MnaseNetSmall, NASNetLarge, NASNetMobile, Xception, MobileNetV3Large, MobileNetV3Small, EfficientNetLite0 ~ Lite6, EfficientNetB0 ~ B7**
  - Supported losses: **ArcFace, CosFace**

- **Android-FaceRecognition**

  - Is runtime face identification on Android device. I used IJB-C dataset for testing labels.

- **FaceBird**

  - Is game applicaiton which utilize ML Kit for controlling the bird with rotating Face

Gaze Tracking (Eye Tracking)

- **GAZEL**

  - Is a **Personalized Runtime Mobile Gaze Tracker**.
  - This work is official implementation of GAZEL framework which is published in PerCom 2021(GAZEL: Runtime Gaze Tracking for Smartphones) .

- **GazeBird**

  - Is game application which utilize GAZEL for controlling the bird.

- **MLKitGazeDataCollectingButton**

  - Is gaze data collecting application for making gaze estimation model required for GAZEL.

TensorFlow Lite Python

#TensorFlow Lite #Python #Interpreter

- Works on TensorFlow Lite Python Interpreter.
  Based on: https://www.tensorflow.org/lite/examples, converted Android Java(Kotlin) code to Python
  - TFLitePoseEstimation
  - TFLiteDetection
  - TFLiteClassification
  - TFLiteSegmentation

Power Management

#Mobile #PM #flask #svm #dark mode

▼ Works on optimizing Mobile device battery
- Energy_Aware_UI_Design_Tool_ver2
- Energy_Aware_UI_Design_Tool
- Power_Usage_of_Pixel_XL_SVM_modeling
- Python3_Image_Clustering
- Python3_Monsoon_ADB
▼ Works used to log iBeacons
- iBeaconLogging

Visualization on Web-browser

#HighCharts.js #Go.js #flask #csv #Web browser

▼ Visualizing Charts
- Flask_Dynamic_Chart
- CSV_to_Highcharts