Yoon-Sung Kim

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EDUCATION

Sungkyunkwan University **Suwon, South Korea**

Senior Year of College of Software

Bachelor of Computer Science & Engineering [02. 2021]

- **Major GPA:** 4.23 / 4.5 | **Cumulative GPA:** 4.05 / 4.5
- **Honors:** Scholarship for Academic Excellence (Spring 2015, Fall 2016, Fall 2017), College of Software Dean's List (Fall 2016, Fall 2017)
- **Coursework:** Data Structure, Database, System Programming, Automata Theory, Logic Circuits, Computer Architecture, Operating Systems, Computer Networks, Big Data Analytics, Human Computer Interaction, Software Engineering, Algorithms, Programming Languages

WORK & LEADERSHIP EXPERIENCE

ONNX Runtime based Landmark Tracker Integration **Hyprsense, Burlingame, CA**

Project in Hyprsense [Oct 2019 ~ Feb 2020]

- Integrated ONNX runtime based landmark tracker on facial motion capture SDK
- Implemented ONNX model converter guaranteeing stable performance on various GPUs

Facial Tracking Application for iOS **Hyprsense, Burlingame, CA**

Project in Hyprsense [Mar 2019 ~ Sep 2019]

- Using Hyprface SDK, built an iOS example app for facial expression tracking on Swift
- Put character node on user's face as rendering with SceneKit and MetalKit on iOS
- Exported a character model with Blender and mapped its blendshapes to morphers of SCNNode

iPhoneXR 3D Data Capturing Application **Hyprsense, Burlingame, CA**

Project in Hyprsense [Jan 2019 ~ Jul 2019]

- Capture user's RGB and depth video data for training facial expression tracking SDK.
- Upload recorded data to cloud storage using AWS API to manage captured data
- Compressed each depth frame when recording video to transfer them on more efficient time

FPGA-based Acceleration **University of California, Irvine, CA**

Research Project in I-SURF Program [Jun 2018 ~ Dec 2018]

- Using SDAccel, accelerated matrix computation on FPGA device
- Improved performance of computer vision algorithm using C++ and OpenCL
- Deployed Alexnet model on CPU using OpenVINO

WORK & LEADERSHIP EXPERIENCE

Tetris Game with C++ for Windows Console **Sungkyunkwan University, Suwon, South Korea**

Term Project in Computer Engineering Experiment II: C++ Language [Oct 2017 ~ Dec 2017]

- Using Windows console library in Visual Studio, built real-time Tetris game with C++
- Implemented modules for real-time game on Windows such as double buffering on a console screen

Stop-motion Drawing tool with MATLAB **Sungkyunkwan University, Suwon, South Korea**

Term Project in Computer Programming for Engineers [Oct 2017 ~ Dec 2017]

- Using Windows API supported from MATLAB, developed a drawing tool for stop motion animation
- Designed algorithms for real-time drawing with restricted API of MATLAB

SKILLS, ACTIVITIES & INTERESTS

Programming: C++, Python, Swift
Technologies / Environments: Visual Studio, Windows, Xcode, iOS
Language Skill: Korean, English
Interests: Hardware Acceleration, Computer Architecture, Distributed System, iOS development