



Jaewoo Jung

lukael.jung@gmail.com

<https://lukael.kr>

Address

Seoul, Republic of Korea

Update

2021-08-26

Jaewoo Jung

MS/PhD Student

Education

2020 - Present, Yonsei University

Electrical and Electronic Engineering

2015 - 2020, Yonsei University

B.S. in Electrical and Electronic Engineering

2013 - 2015, Changwon Science High School

Chemistry

Experience

Mar 2020 - Present, Graduate Student, Optical Imaging Systems Laboratory in Yonsei University

Detailed achievements:

- Human-Biology Interaction
 - Biotic Games
- Lensless Microscopy
 - Digital In-line Holography
- Lensless Imaging
 - Deep Learning for image reconstruction

Jul 2019 - Feb 2020, Engineer, Tokyo

Detailed achievements:

- Voice recognition kiosk(Prototype)
 - Voice recognition
 - Raspberry PI

Jan 2019 - Feb 2020, Internship, Optical Imaging Systems Laboratory in Yonsei University

Detailed achievements:

- Human-Biology Interaction
 - Biotic Games
- Microscopy
 - Digital In-line Holography

Dec 2016 - Dec 2018, Internship, Biological Cybernetics Laboratory in Yonsei University

Detailed achievements:

- Swarm robotics
 - Hardware
 - * FreeRTOS
 - * Wi-Fi
 - * Bluetooth
 - * Vibration Control
 - Software
 - * Formation
 - * Charging system



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Mar 2017 - Dec 2017, *Research Engineer, Luxrobo*

Detailed achievements:

- Network Module Firmware(ESP32)
 - FreeRTOS
 - Wi-Fi
 - BLE
 - USART
- OS Development
 - RTOS research
 - Contiki OS
- Bluetooth 5
 - Nordic nRF52DK
 - Mesh Network
- NLP
 - Chatscript
 - Slack-Chatscript Linkage(Python)

Jan 2017 - Dec 2017, *President, SBTM*

Robot club in Yonsei University

Software Development Skills

Programming

- C/C++
- Python
- MATLAB

Computer Software

- LaTeX
- Eagle CAD
- Git



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Competitions

2019, Undergraduate Research Program, KOFAC

High speed lensless camera for microsaccades measurement

2019, International Student Car Competition, KTSA

Autonomous driving Cart

2018, International Student Car Competition, KTSA

Autonomous driving Cart

LIDAR Team

2017, Smart Model Car Competition, Hanyang University

Autonomous driving Model Car

Team Leader, Hardware Engineer

2016, Smart Model Car Competition, Hanyang University

Autonomous driving Model Car

Hardware Engineer

2016, Korea Robot Aircraft Competition, KAIA

Autonomous driving Quadcopter

Team Leader, Hardware Engineer

2014, Student Science Invention Competition, GNSE

Mono/Stereo Earphone

2014, ISEF-K, KOFAC

Study on Gas phase Adsorption of Toxic substances on ES, ESM and Filter

2014, Science Exhibition, GNSE

Measuring Chemical reaction rate using Smartphone

2014, Steam R&E Festival, KOFAC

Smartphone Application for Chemistry Experiment

2013, Student Science Invention Competition, GNSE

Easy Bookbinding Tape Cutter

2013, Student Creativity Festival, GNE

Between Ventilation and Insulation

2013, Embedded Software Contest, KESSIA

Minesweeper Robot using LEGO Mindstorm

Hardware Engineer

2013, R&E Festival, KOSAF

Develop Filters made from ESM's Toxic substances Absorptive Ability



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Publications

2021, *A Smartphone-Based Fourier Ptychographic Microscope Using the Display Screen for Illumination*, ACS Photonics

2020, *Lensless Imaging with an End-to-End Deep Neural Network*, 2020 IEEE International Conference on Consumer Electronics-Asia (ICCE-Asia)

2020, *MicroAquarium : An Immersive and Interactive Installation with Living Microorganisms*, ACM conference on Human Factors in Computing Systems (CHI) Extended Abstracts

2018, *Various Swarm Behavior Inspired by Nature Using Vibration Locomotion Robots*, Capstone Design

2018, *Swarm Robots Using Vibration Motor Control*, ICROS

Conference Presentation

2021, *Poster, Optics and Photonics Congress*

Jaewoo Jung, Tae Young Kim, Donggeun Bae, Ernest K. Ryu, Seung Ah Lee, *Unrolled ADMM for Image Reconstruction in Lensless Cameras*

2021, *Poster, Optics and Photonics Congress*

Nakkyu Baek, Myeong Hun Seong, Tae Young Kim, **Jaewoo Jung**, Seung Ah Lee, *Single-Shot Full-Stokes Lensless Camera*

2021, *Poster, Optics and Photonics Congress*

Kyungwon Lee, Kyung Chul Lee, **Jaewoo Jung**, Seung Ah Lee, *Miniaturized System for Live-Cell Imaging Based on Fourier Ptychographic Microscopy*

2020, *Poster, KSM Annual Fall Conference*

Kyung Chul Lee, Kyungwon Lee, **Jaewoo Jung**, Se Hee Lee, Seung Ah Lee, *Compact and Low-cost Fourier Ptychographic Microscopy for Wide-field and High-resolution Imaging of Cell Screening*

2020, *Poster, Advanced Biophotonics Conference Optical Society of Korea*

Tae Young Kim, Kyungchul Lee, Kyungwon Lee, Nakkyu Baek, **Jaewoo Jung**, Seung Ah Lee, *High-Speed Lensless Camera for Microsaccade Measurement*

2020, *Oral, IEEE/IEIE ICCE-ASIA*

Kyung Chul Lee, Se Hee Lee, **Jaewoo Jung**, Kyungwon Lee, Seung Ah Lee, *Wide-field, High-resolution Computational Microscopy on a Smartphone*

2020, *Poster, Optical Society of Korea Summer Meeting*

Tae Young Kim, Kyungchul Lee, Kyungwon Lee, Nakkyu Baek, **Jaewoo Jung**, Juhung Kim, Kinwook Kim, Young-Seok Seo, Seung Ah Lee, *High-Speed Lensless Eye Tracker for Microsaccade Measurement*

2020, *Poster, Optical Society of Korea Summer Meeting*

Kyung Chul Lee, Kyungwon Lee, **Jaewoo Jung**, Se Hee Lee, Seung Ah Lee, *Wide-field Computational Microscope on a Smartphone Using Screen Illumination*



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2019, *Poster, Advanced Biophotonics Conference Optical Society of Korea*

Tae Young Kim, Nak Kyu Baek, **Jaewoo Jung**, Minhyeok Lee, Seung Ah Lee, *High-Speed Lensless Camera for Microsaccade Measurement*

Plays

2019, *Core-XY Autonomous Chess board*

2018, *Localization using multiple Gyroscope*

2016, *Humanoid(KHR-1)*

2016, *LED cube(8×8×8)*

2016, *Robot Soccer*

2015, *Quadcopter*

2015, *Guitar Effector*

Interests

Professional

NAS, DevOps, Forensic, Security

Personal

Bass guitar, Reading, Tea