

SUYEON CHOI

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RESEARCH INTERESTS

Computational Imaging, 3D Displays, Light-fields, Nanophotonics and Computer Vision

EDUCATION

Seoul National University

Mar 2013 – Feb 2019

Bachelor of Science in Electrical and Computer Engineering

GPA (Overall : **4.13**/4.30, Major : **4.21**/4.30)

2-year absence to fulfill military duty (Aug 2015 – May 2017)

Seoul Science High School

Mar 2010 – Feb 2012

The school For Gifted Students

PUBLIC DEMONSTRATION

S. Lee, D. Yoo, Y. Jo, **S. Choi**, B. Lee “Near-Eye Displays with 80 Focal Planes”, IMID 2018 SF-Zone

RESEARCH EXPERIENCE

Optical Engineering and Quantum Electronics Laboratory, Seoul National University

Research Assistant Intern (Advisor : Professor Byoung-ho Lee)

2017, Jun 2018 – Present

- ★ Eyeglasses-free Display Using Tomographic Display
 - Applied DART and PALM Algorithm to binary backlight optimization for the 1st time
- ★ Near-Eye Displays with 80 Focal Planes :
 - Developed a prototype that supports a large number of layers within the wide depth of field
 - Synchronized backlight and focus-tunable optics by using Arduino and Labview
- ★ *pypupil* : Eye-tracker helper module
 - Developed Eye-tracker helper module for pupil-labs products in Python (*Github*)
- ★ Next-Generation Holographic Optical Metasurfaces
 - Studied the latest research trends of metasurfaces and simulated the results using COMSOL
 - Participated in freshman seminar of the lab which covers *Fundamentals of Photonics*, by Saleh

Virtual Machine & Optimization Lab, Seoul National University

Undergraduate Research Project (Advisor : Professor Soo-Mook Moon)

Jan 2018 – Jun 2018

- ★ Gitchain : a decentralized version control system using blockchain network
 - Devised a novel protocol with optimization and implemented a prototype

WORK EXPERIENCE

Cyber Bureau, Korean National Police Agency

Mar 2016 – May 2017

Cybercrime Investigation Planning Team

- Selected as the only one agent from the whole auxiliary police officers
- Worked as a full-stack software engineer for the national performance management system.

Sway Mobile, Inc

Jan 2015 – Feb 2015

Software Internship

- Implemented In-App Purchase module for Android in Unity

Samsung SDS

Aug 2013 – Aug 2015

Samsung SDS sGen Club, Software Internship Program

- Participated in three projects of service development for two years.
- ★ White Cane : a walking aids iOS application using GPS for the visually impaired people.
- Won bronze and popularity awards at the year-end project awards of all sGen Club teams.

AWARDS AND SCHOLARSHIPS

Grand Prize in Blockchain Contest, <i>LINE X Korean Institute of Information Scientists and Engineers</i>	2018
\$3,000 as awards, participated with <i>Gitchain</i> project.	
Bronze Medal in the University Students Mathematics Contest, <i>the Korean Mathematical Society</i>	2016
Silver Medal in the International Physics Olympiad (IPhO)	2012
Gold Medal in both the Korean Mathematical/Physics Olympiad	2009/2008 respectively
Presidential Science Scholarship , <i>Korea Student Aid Foundation</i>	2013 – 2018
Full tuition and partial stipend (\$5,000 / year) for academic excellence.	
Youth Scholarship , <i>Woongjin Foundation</i>	2012

TEACHING**Tutor**, *Seoul National University*

Digital Systems Design and Experiments, <i>Dept. of ECE</i>	Autumn 2018
Basic Physics, <i>Dept. of Physics</i>	Autumn 2014, Spring 2015, 2018
Introduction to Electromagnetism, <i>Dept. of ECE</i>	Autumn 2017
Digital Logic Design and Lab, <i>Dept. of ECE</i>	Autumn 2014

Undergraduate Teaching Assistant, *Seoul National University*

Introduction to Circuit Theory and Laboratory, <i>Dept. of ECE</i>	Spring 2015
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EXTRA CURRICULAR ACTIVITIES

Qualcomm IT Tour , <i>Qualcomm, San Diego</i>	Aug 2017
Security Partol Service , <i>Seoul Eunpyeong Police Station</i>	Sep 2015 – Mar 2016
– Worked as an auxiliary policeman for military service	
Seoul National University Children's Hospital, SNUH	Jul 2013 – Jul 2015
– Taught math to patients of childhood cancer	
Freshman Mentor , <i>Dept. of ECE, SNU</i>	2014
– Helped 10 freshmen adjust to university life	

TECHNICAL STRENGTHS

Programming Languages	MATLAB, Python, Javascript (Advanced), C++, Java, Verilog, MySQL (Intermediate)
Tools	L ^A T _E X, Blender, Xilinx Vivado, Labview, git, COMSOL(EM wave analysis)
Deep Learning Frameworks	TensorFlow, Keras (Intermediate)

REFERENCES

Soo-Mook Moon

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