SUYEON CHOI

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https://choisuyeon.github.io

RESEARCH INTERESTS

3D Displays, Light-fields, Computational Imaging, Metasurfaces and Blockchain

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

HONORS AND AWARDS

Grand Prize in Blockchain Contest, *LINE X Korean Institute of Information Scientists and Engineers*   *2018*
  $3,000 as awards, participated with *Gitchain* project.
Finalist, Samsung Collegiate Programming Cup (SCPC)   *2016*
Bronze Medal in the University Students Mathematics Contest, *the Korean Mathematical Society*   *2016*
Silver Medal in the **International Physics Olympiad (IPhO)**   *2012*
Gold Medal in the Korean Mathematical Olympiad, *the Korean Mathematical Society*   *2009*
Gold Medal in the Korean Physics Olympiad, *the Korean Physical Society*   *2008*

SCHOLARSHIPS

Presidential Science Scholarship, *Korea Student Aid Foundation*   *2013 – 2018*
  Full tuition and partial stipend (*$5,000 / year*) for academic excellence.

Youth Scholarship, *Woongjin Foundation*   *2012*

RESEARCH EXPERIENCE

Optical Engineering and Quantum Electonics Laboratory, SNU
Research Assistant Intern (Advisor : Professor Byoungho Lee)   *Jul 2018 – Present*

⋆ Shape Scanning Display :
  − Developed a prototype of Shape Scanning Display.
  − Demonstrated prototypes for wearable devices at SF-Zone of **IMID 2018**

⋆ *pypupil* : Eye tracker helper module
  − Developed Eye tracker module for pupil-labs products in Python (*Github*)
  − *pypupil* includes essential functions such as calibration without World camera.

Creative Engineering Design Project (Advisor : Professor Byoungho Lee)   *Sep 2017 – Dec 2017*
  − Studied the latest research trends of metasurfaces and simulated the results using COMSOL.

Virtual Machine & Optimization Lab, Seoul National University

Undergraduate Research Project (Advisor : Professor Soo-Mook Moon)   Jan 2018 – Jun 2018

- ★ Gitchain : P2P git using blockchain network.
  - − Devised a novel protocol and implemented a prototype.
  - − Awarded Grand Prize, LINE X KIISE Blockchain Contest, $3,000

WORK EXPERIENCE

Cyber Bureau, Korean National Police Agency   Mar 2016 – May 2017
Auxiliary Police specialized in computer

- − Selected as the only one of the total auxiliary police officers.
- − Managed database systems and servers of national performance collection network.

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 application using GPS for the visually impaired people.
  - − Won bronze and popular awards at the year-end project awards of whole sGen Club teams.

EXTRA CURRICULAR ACTIVITIES

Qualcomm IT Tour, *Qualcomm, San Diego*   Aug 2017
Participant

- − selected as a participant of Qualcomm IT Tour to visit Qualcomm headquarters in San Diego

Security Partol Service, *Seoul Eunpyeong Police Station*   Sep 2015 – Mar 2016
Auxillary Police

- − A part of military service

Seoul National University Children's Hospital, *SNUH*   Jul 2013 – Jul 2015
Math Teacher

- − Taught math to patients of childhood cancer.

Freshman Mentor, *Dept. of ECE, SNU*   2014

- − Helped 10 freshmen adjust to university life.

TEACHING

Tutor

Digital Systems Design and Experiments, *Dept. of ECE, Seoul National University*	*Autumn 2018*
Basic Physics, *Dept. of Physics, SNU*	*Autumn 2014, Spring 2015, Spring 2018*
Introduction to Electromagnetism, *Dept. of ECE, SNU*	*Autumn 2017*
Digital Logic Design and Lab, *Dept. of ECE, SNU*	*Autumn 2014*

Undergraduate Teaching Assistant

Introduction to Circuit Theory and Laboratory, *Dept. of ECE, SNU*	*Spring 2015*

TECHNICAL STRENGTHS

Programming	MATLAB, Python, C++, Javascript, Java, Verilog, MySQL
Protocols & APIs	jQuery, JSON
Tools	LaTeX, LabView, Zemax, Vim, Xilinx Vivado
Algorithms	computational imaging, optimization, signal processing, machine learning (including deep learning and boosting machines)