

Kiyoon Kim http://kiyoon.kim/

Hello, I'm a computer scientist with machine learning and signal processing background.

Email: im@kiyoon.kim k.kim-20@sms.ed.ac.uk

Mobile: +44-7494-630465

## EDUCATION

The University of Edinburgh

MSc in Artificial Intelligence

Edinburgh, United Kingdom Sep 2018 - Sep 2019 (Estimated)

Ulsan National Institute of Science and Technology (UNIST)

Ulsan, South Korea

Bachelor in Electrical Engineering, Computer Science and Engineering: magna cum laude

Mar 2014 - Feb 2018

UNIST

- o Contribution Award<sup>1</sup>: Chairman's Award
- GPA of Computer Science and Engineering: 4.15/4.3 (97.5/100)
- GPA of Electrical Engineering: 3.94/4.3 (95.4/100)
- o GPA of both majors: 4.00/4.3 (96.0/100)
- o Total Grade Point Average: 3.79/4.3 (93.9/100)

#### SCHOLARSHIPS

Currency measure:  $1 \text{ USD} = 1{,}127.00 \text{ KRW (Oct } 17{,} 2018)$ 

NAVER UNIST Undergraduate Poster Award (NAVER UUPA)

NAVER Corp., UNIST

 $\Psi 2,500,000 \ (\$2,218)$  Dec 2017

UC Berkeley Entrepreneurship Programme ₩9.975,200 (\$8,851)

Living Scholarship

UNIST

₩2,140,000 (\$1,899)
Mar 2016 - Dec 2017

• UNIST

₩2,517,600 (\$2,234)
Mar 2016 - Dec 2017

National Science & Engineering Scholarship

W12,588,000 (\$11,169)

Korea Student Aid Foundation

Mar 2016 - Dec 2017

Korea Supercomputing Challenge (KSC 2015)

#500,000 (\$444) (shared by 2 members)

KISTI Supercomputing Education Center
Oct 2015

HeXATHON UNIST, NAVER Corp.

\frac{\psi 1,500,000 (\$1,331) (shared by 4 members)}{May 2015}

Tutor for Engineering Programming I (3 semesters)

UNIST

 $orall 1,200,000 \; (\$1,065)$  Sep 2014 – Dec 2015

<sup>&</sup>lt;sup>1</sup>Students who have shown especially good behaviour or enhanced the university's honour can be given a contribution award. The contribution award winner shall be selected by deliberation of the Committee based on recommendations from the head of the school (department) in each school (department). In 2018, among 704 undergraduates from various departments, 6 people have been awarded.

#### **PUBLICATIONS**

- M. S. Ryoo, <u>K. Kim</u> and H. J. Yang, "Extreme Low Resolution Activity Recognition with Multi-Siamese Embedding Learning," *AAAI Conference on Artificial Intelligence*, New Orleans, Louisiana, February 2018. [acceptance rate: 24.6%] https://arxiv.org/pdf/1708.00999.pdf
- Patent: Falling out of hair management system https://patents.google.com/patent/KR20140094301A/en

## EXPERIENCE

Tutor of Imperative Programming

University of Edinburgh

Tutored Java programming with Greenfoot IDE.

Nov 2018

Private Teaching

Personal

Taught TOEIC (English) to a job seeker.

Jul 2018 - Aug 2018

Private Teaching

Personal

Apr 2018

Dec 2017

Taught R Language to a master student.

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NAVER UNIST Undergraduate Poster Award (NAVER UUPA)

NAVER Corp., UNIST

Poster presentation of Extreme Low Resolution Activity Recognition: won 1st place

Ulsan, South Korea

EgoVid Inc. (http://egovid.com)

May 2016 - Dec 2017

Machine Learning Researcher & Developer

- Drone Project Manager: Autonomous drone project using ROS on NVIDIA Jetson TX2 embedded board.
- Realtime Demonstration Running on Embedded Device at CVPR 2017: Demonstrated my work running on NVIDIA Jetson TX2 and helped my colleague for implementing different demonstration about Video Anonymisation Algorithm at CVPR (Computer Vision Pattern Recognition) 2017 conference. https://youtu.be/7jkSum\_pj9o?t=25s
- UC Berkeley Entrepreneurship Programme: Visited UC Berkeley Sutardja Center of Entrepreneurship & Technology for 9 weeks to exchange ideas about making a start-up company.

  UC Berkeley News Article: http://scet.berkeley.edu/keeping-personal-machine-learning-meets-egovid/
- Attended Conferences: AAAI Conference on Artificial Intelligence 2017, San Francisco, California, USA Asilomar 2016, Pacific Grove, California, USA Ubicomp 2016, Heidelberg, Germany
- Linux GPU Computing Server Setup for Machine Learning: Installed Ubuntu Server and programs needed for machine learning and sharing devices with multiple users. VNC remote desktop, Docker and Virtualenv.
- Study: Machine Learning and Computer Vision: Studied machine learning and computer vision with Coursera, Udacity courses.
- Study: OFDM Radar Signal Processing: Studied OFDM radar signal processing for possible future work in radar classification machine learning problem.

Private Teaching Personal

 $Taught\ Computer\ Science\ and\ Engineering\ subjects\ to\ two\ university\ students.$ 

 $Mar\ 2016 - Dec\ 2016$ 

- Object Oriented Programming (C++)
- Data Structure (C++)
- Principles of Programming Languages (SML, Racket, Python)

Private Teaching

Taught C Language to a pre-high school student.

Jan 2016 - Feb 2016

#### **USPTO Patent Information Crawler**

UNIST

Personal

Developed in Python for building custom database.

Dec 2015 - Apr 2016

Korea Supercomputing Challenge (KSC 2015)

KISTI Supercomputing Education Center

MPI parallel computing competition: won 5th place

Oct 2015
Intel Corp.

Intel Xeon Phi optimisation, parallelisation education

Aug 2015

Completed the education with practices about OpenMP, Vectorisation, and Intel compiler.

Personal Linux Server Buildup Personal Fedora server buildup for personal use Aug 2015 • File cloud & synchronisation server o Multimedia streaming server • Web & DB server (Gitlab, URL Shortener, Spam filtering) WISET Startup Springboard UNIST Completed the entrepreneurship programme. Aug 2015 **Private Teaching** Personal Taught mathematics to a high school student. July 2015 - Aug 2015 **HeXATHON** UNIST, NAVER Corp. QR code waiting system implemented with Raspberry Pi: won 1st place May 2015 UNIST Startup Clinic UNIST, NAVER Corp. Smart home app controlling electric output Mar 2015 **Private Teaching** Personal Taught physics to a pre-high school student. Jan 2015 - Feb 2015 Tutor of Engineering Programming I UNIST Taught the subject for 3 semesters, to 3 university students per semester. Sep 2014 - Dec 2015 **Private Teaching** Personal Taught mathematics to a high school student. Jul 2014 - Aug 2014 Math Teacher at Private School Morning of Math Problem-solving assistant for high school students. Jul 2014 - Aug 2014 Korea International Science and Engineering Fair (KISEF 2012) National Science Museum Exhibited and Demonstrated PowerUpdater2 at Daejeon Convention Center. Jan 2012 Korea Olympiad in Informatics (KOI 2011) National Information Society Agency Demonstrated PowerUpdater2: won bronze medal. Sep 2011 Personal

Sparkware (http://sparkware.co.kr)

Personal Website Management (XpressEngine), Program Development (C++, MFC)

May 2010 - Aug 2013

- PowerUpdater, PowerUpdater2: An updater program that can be customised by users easily with GUI menu.
- Waviano: Playing piano with keyboard using multiple music files.
- PowerRegister: An customisable activation program for Windows application programmers.
- **DirectoryDateName**: Easily make directory with name containing current date.
- Flash programs: Simple Flash programs.

#### Flash programming

Personal

Studied and implemented simple Flash programs.

Nov 2004 - Apr 2010

- Elementary, middle school teachers used my programs.
- Managed a blog to release some programs.

# SKILLS AND KNOWLEDGE

Deep learning, Computer vision, Signal processing, Linux server buildup, Machine integration, Web development, Product design

#### Languages, Frameworks and Tools

C · C++ · Python · Linux Bash · TensorFlow / Keras (Machine learning) · MPI (Parallel programming) · CUDA (GPU parallel programming) · MATLAB · OpenCV · Git (Version control) · Docker · NVIDIA Jetson TX2 (Embedded board and Linux) · Raspberry Pi (IoT Linux) · MFC (Windows programming) · Java · HTML · PHP · MySQL / Maria DB · R · Flash action script · Processing · NXT Robot C · Xpress Engine(Website) · Wordpress(Website) · LATEX