

Kiyoon Kim http://kiyoon.kim/

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

I enjoyed computer programming since I was 9.

"Kiyoon" stands for glowing field. I want to make my field of study glow in the future.

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EDUCATION

Ulsan National Institute of Science and Technology (UNIST)

Ulsan, South Korea

Bachelor in Electrical Engineering, Computer Science and Engineering

Mar 2014 - Feb 2018 (estimated)

o GPA of Computer Science and Engineering: 4.15/4.3 (9.65/10)

o GPA of Electrical Engineering: 3.89/4.3 (9.05/10)

o **GPA** of both majors: 3.97/4.3 (9.23/10)

• Total Grade Point Average: 3.77/4.3 (8.77/10)

SCHOLARSHIPS

Currency measure: 1 USD = 1131.63 KRW (24 Sep, 2017)

UC Berkeley Entrepreneurship Programme

UNIST

₩9,975,200 (\$8,815)

Jan 2017 - Feb 2017

Living Expense

UNIST

₩2,140,000 (\$1,891)

Mar 2016 - Feb 2018

Textbook Expense ₩2,517,600 (\$2,225)

UNIST Mar 2016 - Feb 2018

National Science & Technology Scholarship

Korea Student Aid Foundation

₩12,588,000 (\$11,126)

Mar 2016 - Feb 2018

Learning Assistant for Engineering Programming I (3 semesters)

UNIST

₩1,200,000 (\$1,060)

Sep 2014 - Dec 2015

Full Enrolment Fee of UNIST

UNIST

₩12,660,000 (\$11,187)

Mar 2014 - Feb 2016

EXPERIENCE

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

Ulsan, South Korea May 2016 - Present

Machine Learning Researcher & Developer

- o Realtime Demonstration running on Embedded Device at CVPR 2017: At CVPR (Computer Vision Pattern Recognition) 2017 conference, I demonstrated my work running on NVIDIA TX2 and helped my colleague for implementing different demonstration about Video Anonymisation Algorithm. https://youtu.be/7jkSum_pj9o?t=25s
- Thesis: Extreme Low Resolution Activity Recognition: Activity recognition using 16x12 resolution video, mainly for privacy preserving purpose. Siamese embedding space used for learning. I did all the experiments with Keras (Tensorflow) library, including some previous related works. Python, Bash, and CUDA (GPU programming) are used.
 - https://arxiv.org/pdf/1708.00999.pdf
- o 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/

- o Attended Conferences: AAAI conference on AI 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.
- o 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.

USPTO Patent Information Crawler

UNIST

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 Xeon Phi optimisation, parallelisation education

Intel Corp.

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

Aug 2015

Personal Linux Server Buildup

Personal

Fedora server buildup for personal use

Aug 2015

- o File cloud server
- Multimedia streaming server
- o Git server
- o Dropbox-like sync server
- URL shortener
- Web server

WISET Startup Springboard

UNIST

Completed the entrepreneurship programme

Aug 2015 UNIST, NAVER Corp.

HeXATHON QR code waiting system implemented with Raspberry Pi: won 1st place

May 2015

UNIST Startup Clinic

UNIST

Smart home app controlling electric output

Mar 2015 UNIST

Learning Assistant for Engineering Programming I

Sep 2014 - Dec 2015

Taught for 3 semesters, 3 students per each semester.

Morning of Math

Math Teacher at Private School

Jul 2014 - Aug 2014

High school problem-solving assistant

South Korea

Patent: Falling out of hair management system

Jan 2013 - Jul 2014

Hair proportion analysis algorithm implemented by CxImage and MFC.

 \circ https://patents.google.com/patent/KR20140094301A/en

Korea International Science and Engineering Fair (KISEF 2012)

National Science Museum Jan 2012

Exhibited and Demonstrated PowerUpdater2 at Daejeon Convention Center

National Information Society Agency

Demonstrated PowerUpdater2: won bronze medal

Korea Olympiad in Informatics (KOI 2011)

Sep 2011

Personal

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

May 2010 - Aug 2013

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

• 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.
- Directory Date Name: 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, Signal Processing, Linux server buildup, Web development, Machine integration, Video editing and filmography, Product design

LANGUAGES, FRAMEWORKS AND TOOLS

 $\begin{array}{l} {\rm C\cdot C++\cdot\ Python\cdot\ Linux\ Bash\cdot\ MATLAB\cdot\ TensorFlow\ /\ Keras\ (Machine\ learning)\cdot\ MPI\ (Parallel\ programming)\cdot\ CUDA\ (GPU\ parallel\ programming)\cdot\ Git\ (Version\ control)\cdot\ Docker\cdot\ Raspberry\ Pi\ (IoT\ Linux)\cdot\ MFC\ (Windows\ programming)\cdot\ Java\cdot\ HTML\cdot\ PHP\cdot\ MySQL\ /\ Maria\ DB\cdot\ Flash\ action\ script\cdot\ NXT\ Robot\ C\cdot\ Xpress\ Engine(Website)\cdot\ Wordpress(Website)\cdot\ LATEX \\ \end{array}$