

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

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

**HeXATHON** 

# WISET Startup Springboard

UNIST

Completed the entrepreneurship program

Aug 2015

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

UNIST, NAVER Corp. May 2015

## UNIST Startup Clinic

UNIST

Smart home app controlling electric output

Mar 2015 UNIST

# Learning Assistant for Engineering Programming I

Taught for 3 semesters, 3 students per each semester.

Sep 2014 - Dec 2015

### Patent: Falling out of hair management system

South Korea Jan 2013 - Jul 2014

Hair proportion analysis algorithm implemented by CxImage and MFC.

National Science Museum

Korea International Science and Engineering Fair (KISEF 2012)

Exhibited and Demonstrated PowerUpdater2 at Daejeon Convention Center

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

# Korea Olympiad in Informatics (KOI 2011)

National Information Society Agency

Demonstrated PowerUpdater2: won bronze medal

Sep 2011

Jan 2012

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

Personal

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, Signal Processing, Linux server buildup, Web development, Machine integration, Video editing and filmography, Product design

### LANGUAGES, FRAMEWORKS AND TOOLS

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