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


# Kiyoon Kim

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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)*
  - **GPA of Computer Science and Engineering**: 4.15/4.3 (98.5/100)
  - **GPA of Electrical Engineering**: 3.89/4.3 (95.8/100)
  - **GPA of both majors**: 3.97/4.3 (96.6/100)
  - **Total Grade Point Average**: 3.77/4.3 (94.5/100)

## Scholarships

Currency measure: 1 USD = 1,131.63 KRW (24 Sep, 2017)

- **UC Berkeley Entrepreneurship Programme** — UNIST
  *₩9,975,200 ($8,815)* — *Jan 2017 – Mar 2017*
- **Living Scholarship** — UNIST
  *₩2,140,000 ($1,891)* — *Mar 2016 – Dec 2017*
- **Allowance** — UNIST
  *₩2,517,600 ($2,225)* — *Mar 2016 – Dec 2017*
- **National Science & Engineering Scholarship** — Korea Student Aid Foundation
  *₩12,588,000 ($11,126)* — *Mar 2016 – Dec 2017*
- **Tutor for Engineering Programming I (3 semesters)** — UNIST
  *₩1,200,000 ($1,060)* — *Sep 2014 – Dec 2015*
- **Academic Performance Scholarship** — UNIST
  *₩12,660,000 ($11,187)* — *Mar 2014 – Dec 2015*

## Experience

- **Naver UNIST Undergraduate Poster Award (Naver UUPA)** — NAVER Corp., UNIST
  *Poster presentation of Extreme Low Resolution Activity Recognition: won **1st place*** — *Dec 2017*
- **EgoVid Inc. (http://egovid.com)** — Ulsan, South Korea
  *Machine Learning Researcher & Developer* — *May 2016 – Present*
  - **Drone Project Manager**: Autonomous drone project using ROS on NVIDIA Jetson TX2 embedded board.
  - **Publication**: M. S. Ryoo, K. Kim and H. J. Yang, "Extreme Low Resolution Activity Recognition with Multi-Siamese Embedded Learning," *AAAI Conference on Artificial Intelligence*, New Orleans, Louisiana, February 2018. *[acceptance rate: 24.6%]*
    https://arxiv.org/pdf/1708.00999.pdf
  - **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
  *OOP (C++), Data Structure (C++), and Programming Languages (SML, Rocket, Python)* — *Mar 2016 – Dec 2016*
- **Private Teaching** — Personal
  *Taught C Language for pre-high school student.* — *Jan 2016 – Feb 2016*
- **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
  - Dropbox-like synchronisation server
  - URL shortener
  - Web server
- **WISET Startup Springboard** — UNIST
  *Completed the entrepreneurship programme.* — *Aug 2015*
- **Private Teaching** — Personal
  *Taught mathematics for 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 for pre-high school student.* — *Jan 2015 – Feb 2015*
- **Tutor for Engineering Programming I** — UNIST
  *Taught the subject for 3 semesters, 3 university students per each semester.* — *Sep 2014 – Dec 2015*
- **Private Teaching** — Personal
  *Taught mathematics for high school student.* — *Jul 2014 – Aug 2014*
- **Math Teacher at Private School** — Morning of Math
  *Problem-solving assistant for high school student.* — *Jul 2014 – Aug 2014*
- **Patent: Falling out of hair management system** — South Korea
  *Hair proportion analysis algorithm implemented in CxImage and MFC.* — *Jan 2013 – Jul 2014*
  - https://patents.google.com/patent/KR20140094301A/en

- **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*
- **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

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