# 「aehoon Kim

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#### **EDUCATION** Ulsan National Institute of Science and Technology, Ulsan, South Korea

B.S., in Computer Science & Engineering, Electrical Engineering

Mar 2011 - Aug 2015

#### **EXPERIENCE**

#### Lawrence Berkeley National Laboratory, California, USA

Undergraduate Research Student

Jul 2015 - Aug 2015

- Identify energy use patterns in smart meter data, and relate these patterns to actions of households
- Make baseline models for each household to cluster the households into different groups

## Moloco, California, USA

Student Web Developer

Oct 2014 - Jan 2015

- · Implement a maximum-likelihood estimation model of the number of users who will download an application
- · Build a web visualization of models from a large-scale database with query optimization and a cache system

## Probabilistic Artificial Intelligence Lab, UNIST

Undergraduate Research Student

Sep 2014 - Sep 2015

- Improved Bayesian Online Change Point Detection by Reading Texts
- · Food image recognition by combining deep convolutional features and shallow encoded features

#### Naver Labs, Seoul, South Korea

Software Development Intern

Jul 2014 - Aug 2014

Build a cloud comment hosting service using Django and Angular.js

#### **AWARDS**

#### Best Paper Award, **DataCom 2015**

Dec 2015

Best Paper Award for Extracting Baseline Electricity Usage Using Gradient Tree Boosting

# Finalist, **Student Cluster Challenge**

Jun 2014

One of 11 international teams (including MIT, Tsinghua Univ) selected through the preliminary contest

# 3rd place, Korea Whitehat Contest 2013

Sep 2013

Awarded by the Minister of National Defense. Received an award of \$8,000

# Finalist, Asia student Supercomputing Challenge 14

Finalist, Asia student Supercomputing Challenge 13

Apr 2014

One of 16 teams among 82 international teams selected through the preliminary contest

# One of 10 teams among 43 international teams selected through the preliminary contest

Jan 2013

# 1st place, Holyshield Hacking Contest 2013

Nov 2013

Awarded by the President of Catholic University of Korea. Received an award of \$1,000

# **PUBLICATIONS**

- 2) T. Kim and J. Choi, Reading documents for bayesian Online Change Point Detection, in Empirical Methods on Natural Language Processing (EMNLP), Lisbon, Portugal, Sep 2015.
- 1) T. Kim, D. Lee, J. Choi, A. Spurlock, A. Sim, A. Todd, K. Wu, Extracting Baseline Electricity Usage Using Gradient Tree Boosting, in 2015 International Conference on Big Data Intelligence and Computing (DataCom 2015), Best Paper Award, Chengdu, China, Dec 2015.

#### **PROJECTS**

### DCGAN-tensorflow, MemN2N-tensorflow, NTM-tensorflow, and lstm-char-cnn-tensorflow

Implemented Deep Convolutional Generative Adversarial Networks (Radford et, al. 2015), End-To-End Memory Networks (Sukhbaatar et, al. 2015), Neural Turing Machine (Graves et, al. 2014), and Character-Aware Neural Language Models (Kim et, al. 2016) in TensorFlow.

## **Poet Neural**, Artificial intelligence that generates Korean poetry

Build a generative model for Korean poetry using neural network for Character-level Language and an online demo

#### Reverse Engineering, LINE, KakaoTalk, Between, Ndrive, and Korail

Reverse engineered LINE, KakaoTalk, Between, Ndrive, and Korail mobile applications and wrote python libraries

#### **Remote Code Execution**, on UNIST attendance checking devices

Embedded devices that check attendance cards was vulnerable to MS 08-067. The password of a main DB server for attendance data is extracted by reverse engineering of the attendance checking program

### **SCHOLARSHIPS**

### Global Scholarship for Undergraduate Research Opportunities Program, UNIST

2015

Received \$3,000 as a financial support for research internship at Lawrence Berkeley National Laboratory

# **LEADERSHIP**

HeXA, Computer Security Club, UNIST

President Aug 2012 - Mar 2013