Taehoon 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

Devsisters, Seoul, South Korea
Software Engineer — Apr 2016 – Present
- Implement deep reinforcement learning models for a fast balance testing
- Build a system for automated anomaly detection with time series datasets
- Work as a substitute of mandatory military service

Vingle, Seoul, South Korea
Software Engineer — Oct 2015 – Apr 2016
- Build a prediction model for age and gender only with the user's action pattern in the services
- Build a personal push notification system and a statistical data visualization for push notification
- Worked as a substitute of mandatory military service

Lawrence Berkeley National Laboratory, California, USA
Undergraduate Research Student — Jul 2015 – Aug 2015
- Identify energy usage patterns in smart meter data, and relate the patterns to actions of households
- Propose baseline usage models for each household to cluster the households into different groups

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

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

Naver Labs, Seoul, South Korea
Software Development Intern — Jul 2014 – Aug 2014
- Build a cloud comment hosting service using Django and Angular.js

Mobile Smart Networking Laboratory, UNIST
Undergraduate Research Student — Jan 2013 – Aug 2014
- Optimizing Mobile Video Streaming: From Context-aware Scheduling to Cloud-assisted Caching

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), **Best Paper Award**, Chengdu, China, Dec 2015.

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

1st place, **Holyshield Hacking Contest 2013** — Nov 2013
Awarded by the President of Catholic University of Korea. Received an award of $1,000.

Finalist, **Asia student Supercomputing Challenge 14** — Apr 2014
One of 16 teams among 82 international teams selected through the preliminary contest

Finalist, **Asia student Supercomputing Challenge 13** — Jan 2013
One of 10 teams among 43 international teams selected through the preliminary contest

Outstanding Graduate Award, **Ministry of Science, ICT and Future Planning** — Feb 2016
Only one selected graduate, awarded by the Minister of Science, ICT and Future Planning

Student Outstanding Contribution Award 2014, UNIST — Dec 2014

Student Outstanding Contribution Award 2013, UNIST Jan 2014

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

Academic Performance Scholarship, UNIST 2011 – 2015

National Science and Engineering Scholarship, Korean Student Aid Foundation 2013

PROJECTS

DCGAN in TensorFlow, *Deep learning model for image generation*
Implemented Deep Convolutional Generative Adversarial Networks (Radford et, al. 2015) in TensorFlow

Neural Face, *AI that generates face images*
Build a generative model for face images using Deep Convolutional Generative Adversarial Networks and a web demo

Deep Q-network in TensorFlow, *Deep learning model for reinforcement learning*
Implemented Human-level control through deep reinforcement learning (Mnih et, al. 2015) in TensorFlow

Neural Turing Machine in TensorFlow, *Deep learning model for algorithm learning*
Implemented Neural Turing Machine (Graves et, al. 2014) in TensorFlow

Deep Q-network in TensorFlow, *Deep learning model for reinforcement learning*
Implemented Human-level control through deep reinforcement learning (Mnih et, al. 2015) in TensorFlow

Deep Visual Analogy-Making in TensorFlow, *Deep learning model for visual analogy*
Implemented Deep Visual Analogy-Making (Reed et, al. 2015) in TensorFlow

Neural Variational Inference for Text Processing in TensorFlow, *Deep learning model for question answering*
Implemented Neural Variational Inference for Text Processing (Miao et, al. 2015) in TensorFlow

Character-Aware Neural Language Models in TensorFlow, *Deep learning model for language model*
Implemented Character-Aware Neural Language Models (Kim et, al. 2016) in TensorFlow

End-To-End Memory Networks in TensorFlow, *Deep learning model for question answering*
Implemented End-To-End Memory Networks (Sukhbaatar et, al. 2015) in TensorFlow

Teaching Machines to Read and Comprehend in TensorFlow, *Deep learning model for question answering*
Implemented Teaching Machines to Read and Comprehend (Hermann et, al. 2015) in TensorFlow

Poet Neural, *AI that generates Korean poetry*
Build a generative model for Korean poetry using neural network for Character-level Language and a web demo

ReviewDuk, *Korean sentiment analyzer*
Build a Korean sentiment analyzer using logistic regression and Korean Movie Review dataset

Reverse Engineering, *LINE, KakaoTalk, Between, Ndrive, and Korail*
Reverse engineered 1) LINE, 2) KakaoTalk, 3) Between, 4) Ndrive, and 5) Korail and wrote python libraries

VoxOffice & VoxMusic, *Data Visualization*
A Streamgraph Data Visualization of Film Box Office and Music Chart Ranking

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

LEADERSHIP

HeXA, Computer Security Club, UNIST
President Aug 2012 – Mar 2013