Sangyoon Lee

CONTACT

Ph.D. student
School of Computing, KAIST
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Kim Byung Ho IT Building (N1) #722
KAIST, 291 Daehak-ro, Yuseong-gu
Daejeon 34141, Republic of Korea

RESEARCH INTERESTS

Human-Computer Interaction

EDUCATION

Korea Advanced Institute of Science and Technology (KAIST)
Ph.D. student in Computer Science
Advisor: Geehyuk Lee, Ph.D.

Daejeon, Korea
MAR. 2018 – Present

Korea Advanced Institute of Science and Technology (KAIST)
M.S. in Computer Science
Thesis: "Diagnosing and Coping with Mode Errors in using a Dual-language Keyboard"
Advisor: Geehyuk Lee, Ph.D.

Daejeon, Korea
2018

Korea Advanced Institute of Science and Technology (KAIST)
B.S. in Computer Science

Daejeon, Korea
2016

PUBLICATIONS

International Conference Papers

1. **MirrorPad: Mirror on Touchpad for Direct Pen Interaction in the Laptop Environment**
   Sangyoon Lee, Youn-kyung Lim, Geehyuk Lee
   CHI 2020

2. **Voice+Tactile: Augmenting In-vehicle Voice User Interface with Tactile Touchpad Interaction**
   Jingun Jung, **Sangyoon Lee**, Jiwoo Hong, Eunhye Youn, and Geehyuk Lee
   CHI 2020

3. **Diagnosing and Coping with Mode Errors in Korean-English Dual-language Keyboard**
   Sangyoon Lee, Jaeyeon Lee, Geehyuk Lee
   CHI 2019

4. **Auto-switching List Search Interface for Touchscreen Smartwatches**
   Jingun Jung, **Sangyoon Lee**, Sunggeun Ahn, and Geehyuk Lee
   MobileHCI 2018

Domestic Conference Papers

1. **Diagnosing and Coping with Annotation Distribution Problem in PDF**
   Sangyoon Lee and Geehyuk Lee
   HCI Korea 2020

2. **First Principles Study of spin polarization in Fe-doped monolayer C2N-h2D**
   Sangyoon Lee and Geumbi Jung
   EDISON Challenge 2016

3. **An experimental comparison of user postures between tabletbased reading activities and book-based reading activities**
   Sangyoon Lee
   KCC 2015

Extended Abstracts: Posters and Demos

1. **Verge-it: Gaze Interaction for a Binocular Head-Worn Display using Modulated Disparity Vergence Eye Movement**
   Sunggeun Ahn, Jeongmin Son, **Sangyoon Lee** and Geehyuk Lee
   CHI 2020

2. **MirrorPad: A Touchpad for Direct Pen Interaction on a Laptop**
   Sangyoon Lee and Geehyuk Lee
   ISS 2019

Patents

1. **Smart-toggle for auto recovering from Korean-English mode errors**
   KR Patent Application. 10-2019-0060681, 2019-05-23.

WORK EXPERIENCE	**Gold Spoon** Software Engineer, Co-Founder - Backend engineer, API server construction *Skills*: Django, Go, Meteor, MongoDB, AWS, React.js, Youtube API	MAY. 2015 – FEB. 2016

Langpoo   JAN. 2015 – MAR. 2015
Software Engineer
- Backend engineer, API server construction
Skills: Django, AWS, RabbitMQ, Android GCM

Graduate School of Science and Technology Policy, KAIST   JUN. 2014 – JAN. 2015
Work-study Program
- Homepage renewal

Computational Nanotech Lab, KAIST   JAN. 2014 – DEC. 2015
Research Intern & Software Engineer
- Hybrid Interface Materials DB construction
- Application of the Machine Learning Algorithm to Electronic Structure Calculations
Skills: Django, Mysql, Scikit-learn, Machine Learning techniques, Tensorflow
Publications:

1. **Application of the Machine Learning Algorithm to Electronic Structure Calculations: A Test Case of B/N-doped Graphene**
   Kim, et al
   KPS, 2016.
   - Contribution in developing the web application & machine learning techniques.

Interactive Computing Lab, KAIST   JAN. 2014 – MAR. 2014
Research Intern
- Machine State Estimation Using Electric Current Measurement Sensor
Skills: Android

Social Computing Lab, KAIST   MAY. 2013 – JUN. 2015
Research Intern & Software Engineer
- User Depression Mitigation Project
Skills: Facebook login API, Flask, Django, Html, Javascript, CSS
Publications:

1. **Manifestation of depression and loneliness on social networks: a case study of young adults on Facebook**
   Park, Sungkyu, et al
   CSCW, 2015.
   - Contribution in developing the web application.

	Intelligence in Science & Technology, KISTI	JUN. 2013 – AUG. 2013

Intelligence in Science & Technology, KISTI   JUN. 2013 – AUG. 2013
Summer Intern
- Big data(scientist's bio) analysis and processing
Skills: Mysql, Java, Hadoop, MapReduce

ACTIVITIES   **CS Undergraduate Student Council, KAIST**   JAN. 2014 – JAN. 2015
President

CS Undergraduate Student Council, KAIST   JAN. 2013 – JAN. 2014
Vice Representative of '12

AWARDS   **Naver '19 PhD Fellowship**   Fall 2019
PhD Fellowship Award

ISS '19 Demonstration   Fall 2019
Honorable Mention Demo Award

UIST '17 Student Innovation Contest   Fall 2017
People's Choice award

OPEN SOURCE   **Konlpy, Konlpy**   MAY. 2016 – Present
CONTRIBUTION
Python package for Korean natural language processing
Url: https://github.com/konlpy/konlpy

PinPoint, Naver   DEC. 2014 – Present
Pinpoint is an open source APM (Application Performance Management) tool for large-scale distributed systems written in Java
Url: https://github.com/naver/pinpoint

OPEN SOURCE   **Web Speech AI for youtube player**   SEP. 2017 – Present
PROJECT
This project is a speech-ai for managing youtube video player.
This is a wrapper server written by Flask to integrate http://api.ai/ and Mozila Web speech recognition api
Url: https://github.com/pinetree408/speech-ai

Wrist Gesture Recognizer On Smartwatch   SEP. 2017 – Present
This project recognizes four wrist gesture on smartwatch with machine learning technique(SVM)
Url: https://github.com/pinetree408/tilt_selection_server

BookmarksReminder   SEP. 2016 – Present
This chrome extension gives you a reminder alarm for bookmarks
Url: https://chrome.google.com/webstore/detail/bookmarksreminder/jeegdkkmnjonkoefmnhokohkbheoeadi

korean-corpus-generator   JUL. 2016 – Present
Python package for Korean corpus generating
Url: https://github.com/pinetree408/korean-corpus-generator

VFT   MAY. 2016 – Present
Visualization Tool for Filtering Test Logs based on Eclipse plug-in
Url: https://github.com/pinetree408/VFT

django-facebook-auth   MAY. 2015 – Present
Django facebbook auth helper
Url: https://pypi.python.org/pypi/django-facebook-auth-helper

TEACHING   **Teaching Assistant**
EXPERIENCE
CS584 Human-Computer Interaction   Fall 2019

CS550 Software Engineering	Spring 2019
CS584 Human-Computer Interaction	Fall 2018
CS420 Compiler Design	Fall 2016
CS220 Programming Principles	Spring 2016

Tutor

| CS311 Computer Architecture | Fall 2016 |

INVITED TALKS **Coping with Mode Errors in Dual-language Keyboard** OCT. 2019
Hancom TechDay, Hancom

ACADEMIC **Reviewer**
SERVICES CHI' 19, MobileHCI' 19