

Sangyoon Lee

CONTACT Ph.D. student
School of Computing, KAIST Kim Byung Ho IT Building (N1) #722
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URL: <http://github.com/pinetree408> Daejeon 34141, Republic of Korea

RESEARCH INTERESTS Human-Computer Interaction

EDUCATION **Korea Advanced Institute of Science and Technology (KAIST)** Daejeon, Korea
Ph.D. student in Computer Science MAR. 2018 – Present
Advisor: Geehyuk Lee, Ph.D.

Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea
M.S. in Computer Science 2018
Thesis: “Diagnosing and Coping with Mode Errors in using a Dual-language Keyboard”
Advisor: Geehyuk Lee, Ph.D.

Korea Advanced Institute of Science and Technology (KAIST) Daejeon, Korea
B.S. in Computer Science 2016

PUBLICATIONS **International Conference and Journal Papers**

1. **WristDial: An Eyes-Free Integer-Value Input Method by Quantizing the Wrist Rotation**
Eunhye Youn, **Sangyoon Lee** Sunbum Kim, Youngbo Aram Shim, Liwei Chan, Geehyuk Lee
IJHCI 2021
2. **ThroughHand: 2D Tactile Interaction to Simultaneously Recognize and Touch Multiple Objects**
Jingun Jung, Sunmin Son, **Sangyoon Lee**, Yeonsu Kim, and Geehyuk Lee
CHI 2021
3. **FS-Pad: Video Game Interactions with a Force Feedback Gamepad**
Youngbo Aram Shim, Keunwoo Park, **Sangyoon Lee**, Jeongmin Son, Taeyun Woo, and Geehyuk Lee
UIST 2020
4. **MirrorPad: Mirror on Touchpad for Direct Pen Interaction in the Laptop Environment**
Sangyoon Lee, Youn-kyung Lim, Geehyuk Lee
CHI 2020
5. **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
6. **Diagnosing and Coping with Mode Errors in Korean-English Dual-language Keyboard**
Sangyoon Lee, Jaeyeon Lee, Geehyuk Lee
CHI 2019
7. **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. **Band Structure Engineering of Monolayer MoS2 by Surface Ligand Functionalization**
Sangyoon Lee and Sufyan Ramzan
EDISON Challenge 2015
4. **An Experimental Comparison of User Postures Between Tablet-based 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. **Method of Converting Word and Apparatuses Performing the Same**
KR Patent Application. 10-2019-0060681, 2020-12-24.

**WORK
EXPERIENCE**

| | |
|--|-----------------------|
| Gold Spoon | MAY. 2015 – FEB. 2016 |
| Software Engineer, Co-Founder - Backend engineer <i>Skills:</i> Django, Go, Meteor, MongoDB, AWS, React.js, Youtube API | |
| Langpoo | JAN. 2015 – MAR. 2015 |
| Software Engineer - Backend engineer <i>Skills:</i> 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 <i>Skills:</i> Django, Mysql, Scikit-learn, Machine Learning techniques, Tensorflow <i>Publications:</i> | |
| 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

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

CHI '21 Paper

Spring 2021

Honorable Mention Award

Google '20 Student Travel Grant

Spring 2020

Student Travel Grant

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
CONTRIBUTION

Konlpy, Konlpy

MAY. 2016 – Present

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>

TEACHING
EXPERIENCE

Teaching Assistant

CS330 Operating Systems and Lab

Fall 2020

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
Hancom TechDay, Hancom

OCT. 2019

ACADEMIC
SERVICES

Reviewer

AH' 20, CHI' 19, MobileHCI' 19