

Insu Jang

AWARDS

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https://insujang.github.io

Research Computer architecture, high performance computing, cloud computing, memory systems,

Interests and hardware security

EDUCATION Korea Advanced Institute of Science and Technology (KAIST)

Daejeon, Republic of Korea

M.S., Computer Science, Expected: Feb 2018 (GPA: 3.99 / 4.3)

Advisor: Jaehyuk Huh, Ph.D.

Sungkyunkwan University, Suwon, Republic of Korea B.S., Computer Science, Feb 2016 (GPA: 4.24 / 4.5)

B.S., Computer Science, Feb 2016 (GPA: 4.24 / 4.5)

RESEARCH Research Assistant Mar 2016 to present

EXPERIENCE School of Computing, KAIST
Topic: Hardware assisted security

Undergraduate Research Assistant May 2014 to Jul 2015

College of Software, Sungkyunkwan University

Topic: Wireless data communication through inaudible sound

Teaching Assistant Fall 2016

EXPERIENCE CS230 – System Programming

Instructor: Jaehyuk Huh, Ph.D. School of Computing, KAIST

EXTRA Vice Representative May 2016 – Aug 2016

ACADEMIC School of Computing, KAIST, Daejeon, Republic of Korea

ACTIVITIES Research Intern Jan 2016 – Feb 2016

Electronics and Telecommunications Research Institute (ETRI)

Daejeon, Republic of Korea Topic: Xen virtualization

Research Intern Jul 2015 – Aug 2015

Advanced Institutes of Convergence Technology (AICT)

Suwon, Republic of Korea

Topics: Hadoop and Apache Spark

Purdue/NIPA Capstone Project Jul 2014 - Aug 2014

Purdue University, West Lafayette, IN, USA

Topic: cooperative fire security system with a humanoid robot

Developer Member Jan 2013 – Apr 2014

Samsung Software Membership, Suwon, Republic of Korea

Topics: Smart Lecture: HTML5 based lecture share system, intranet total management

system, MoleRush: Smart TV - Android interactive game

Honors and National Scholarship, KAIST 2016 – present

| Korea National Scholarship for Science and Engineering, Korea Student Aid Foundation | 2014 - 2015 |
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| Excellence Award , 2015 Convergence App Contest, Sungkyunkwan University | Dec 2015 |
| Dean's List Award, Sungkyunkwan University | Apr 2015 |
| Dean's List Award, Sungkyunkwan University | Oct 2014 |
| Grand Prize , 2013 Smart TV App and Peripherals Contest, Korea Ministry of Trade, Industry, and Energy | Nov 2013 |
| Grand Prize , 2013 Mobile E-learning App Idea Contest, Korea Ministry of Education | Sep 2013 |

Projects

RTSR: Real Time Video Super Resolution

Spring 2017

CS570 – Machine Learning

Applied deep learning based Single Image Super Resolution (SISR) into videos.

HEAD: HardwarE Accelerated Deduplication

Fall 2016

CS710 - Topics in Computing Acceleration with FPGA

Implemented Xilinx FPGA based implementation for file data deduplication.

SUNSHINE: Service for U to eNhance Self-management Helpfully and

Intelligently from Now to forEver

Spring 2016

CS442 – Mobile Computing and Applications

Proposed an intelligent way to control mobile app execution and Internet contents based on contents related factor analysis. Implementation is on Android AOSP 5.0.

CSMA/CN: Collision Notification for 802.11 WLAN with BLE Spring

Spring 2016

CS546 – Wireless Mobile Internet

Proposed a way to notify a collision from a router to clients with Bluetooth Low Energy (BLE).

Energy Aware Real-time Scheduling Algorithm on ARM big.LITTLE HMP Architecture Fall 2015

ECE5756 – Real Time Systems Special Topics

Proposed an algorithm to reduce power consumption while keeping real-time constraints.

My Summary Note: Automatic Note Summary Application

Fall 2015

ICE3037 – Design Capstone Project

Awarded an excellence prize in 2015 Convergence App Contest

Proposed an automatic way of user's summaries in PDFs with Android tablet.

Data Transmission with Inaudible Sound

 $Jul\ 2014-May\ 2015$

A research project as an undergraduate research assistant

Proposed a short-distance data transmission mechanism between microphones and speakers embedded in off-the-shelf smartphones.

MoleRush: Smart TV - Android Interactive Game

Sep 2013

A project in Samsung Software Membership

Awarded the grand prize in 2013 Smart TV App and Peripherals Contest

Designed using smartphones as controllers, and a smart TV as a display board.

Skills Languages

C, C++, Java, Python, Vivado HLS

Software Frameworks

Mobile: Android

Virtualization: KVM, QEMU Database: MySQL, MongoDB

FPGA: Vivado, Vivado HLS, Petalinux

GPU: NVIDIA CUDA

Security: Intel Software Guard Extensions (SGX)

Documentation Tools

LATEX, matplotlib, OmniGraffle

References Jaehyuk Huh

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[CV last updated on Aug 24, 2017]